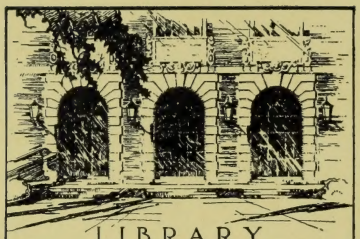

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CATALOGUE

OF

Kentucky University,

1892-1893.

LEXINGTON, KENTUCKY.

CATALOGUE

THE LIBRARY OF THE UNIVERSITY OF ILLINOIS

OF

Kentucky University,

LEXINGTON, KY.

1892-93.

ORGANIZED AS BACON COLLEGE A. D. 1836; UNITED WITH TRANSYLVANIA UNIVERSITY A. D. 1865.

LEXINGTON, KY.:
TRANSYLVANIA PRINTING CO.
1893.

Calendar.

1893.

SEPT. 11—The Session of the College of Liberal Arts, the College of the Bible, the College of Law and the Academy begins ..... Monday, 8:30 A. M.
NOV. 30—Thanksgiving Day ..... Thursday.
DEC. 22—The Christmas Recess begins ..... Friday Evening.

1894.

JAN. 2—The Christmas Recess ends ..... Tuesday Evening.
FEB. 2—The Intermediate Examinations end. Friday Evening.
FEB. 5—The Second Term of the College of Liberal Arts, the College of the Bible and the Academy begins.... Monday, 8:30 A. M.
FEB. 22—Celebration of Washington's Birthday by the Literary Societies ..... Thursday, 10 A. M.
APR. 26—Commencement of the College of Law ..... Thursday Evening.
JUNE 7—Exhibition of the Ossolian Society.. Thursday Evening.
JUNE 8—Exhibition of the Phileusebian Society ..... Friday Evening.
JUNE 10—The Baccalaureate Sermon ..... Sunday, 8 P. M.
JUNE 11—Annual Meeting of the Board of Trustees of the College of the Bible. Monday, 2 P. M.
JUNE 11—The Final Examinations end ..... Monday Evening.
JUNE 11—Exhibition of the Philothean Society. Monday, 8 P. M.
JUNE 12—Commencement of the College of the Bible ..... Tuesday, 10 A. M.
JUNE 12—Meeting of the Donors to the College of the Bible ..... Tuesday, 3 P. M.
JUNE 12—Exhibition of the Cecropian Society. Tuesday, 8 P. M.
JUNE 13—Annual Meeting of the Board of Curators of Kentucky University..... Wednesday, 10 A. M.
JUNE 13—Class Day Exercises of the Graduating Class of the College of Liberal Arts..... Wednesday, 10 A. M.
JUNE 13—Exhibition of the Periclean Society. Wednesday, 8 P. M.
JUNE 14—Commencement of the College of Liberal Arts ..... Thursday, 10 A. M.

Kentucky University.

Organization.

The University comprises four colleges, each under the government of its own Faculty, and a preparatory department in charge of a principal and assistants. These departments are severally styled—

1. The College of Liberal Arts.
2. The College of the Bible.
3. The College of Law.
4. The Commercial College.
5. The Academy.

The College of Liberal Arts, the College of Law and the Commercial College are open to both sexes.

Matriculates of the College of Liberal Arts have the privilege of attending, without additional charge, classes of the College of the Bible and the Academy. Matriculates of the College of the Bible and of the College of Law, as also matriculates of the Commercial College after the completion of their business course, have a like privilege of attending classes of the College of Liberal Arts and the Academy.

The colleges are divided into schools, or departments of instruction, each of which is under the immediate direction of a professor, who is assisted, when necessary, by a competent instructor.

Detailed information is given below concerning the departments of the University in their order and under the head of General Miscellanea. Further inquiry should be addressed to the President of the University or to the presiding officer of the college concerning which information is desired.

Historical Sketch.

Bacon College, the earliest literary institution of its grade established by the Disciples of Christ, began its first session in Georgetown, Ky., November 7, 1836. Its charter, granted at the next session of the Legislature, was approved February 23, 1837.

In the summer of 1839, the institution was removed to Har-

rodsburg, Ky. Beginning its first session in that place September 2, 1839, it was conducted there until insufficient means led to its suspension in the summer of 1850.

In the winter of 1856, John B. Bowman, of Mercer county, entered on the work of founding a university on the ruins of Bacon College. His appeals for financial aid were successful beyond expectation, and the preparatory department was opened September 21, 1857.

An amended charter, approved January 15, 1858, in which the provisions of the first charter were greatly extended, and the name of the institution was changed to KENTUCKY UNIVERSITY, was accepted by the trustees of Bacon College February 2, 1858.

The collegiate department was opened, under the presidency of Robert Milligan, September 19, 1859, and was conducted in Harrodsburg until the summer of 1865, when, after the destruction of the college building by fire, the University was removed to Lexington, Ky., where it succeeded to the property of Transylvania University.

Transylvania Seminary was chartered by the Legislature of Virginia in May, 1783. The first meeting of its trustees was held November 10, 1783, near Danville, Ky. Its first session began February 1, 1785. After a few years the Seminary was removed to Lexington, Ky. Its first session in this place began June 1, 1789.

By an act of the General Assembly of Kentucky, approved December 22, 1798, Transylvania Seminary and Kentucky Academy were united January 1, 1799, under the name of TRANSYLVANIA UNIVERSITY.

After an existence of sixty-six years, Transylvania University was consolidated with Kentucky University by an act of the Legislature, approved February 28, 1865, and accepted by the Curators of Kentucky University, June 20, 1865.

The first session of Kentucky University in Lexington began October 2, 1865. To the College of Liberal Arts and the Academy, which had been conducted at Harrodsburg, the College of the Bible and the College of Law were now added.

The office of Regent of the University was created July 17, 1865. John B. Bowman, the founder of the University, was elected Regent, which office he held until June of 1878.

By an act of the Legislature, approved February 22, 1865,

the Agricultural and Mechanical College of Kentucky was made one of the colleges of Kentucky University. Its first session began October 1, 1866. This college ceased to be one of the colleges of Kentucky University by virtue of an act of the Legislature, approved March 13, 1878.

The Commercial College was organized in the summer of 1867, and was opened to students October 7, 1867.

In the summer of 1878 the last session of the College of the Bible under the charter of Kentucky University closed, and the new College of the Bible, which had been established in 1877, took its place. This college, organized under its own charter and in administration and control entirely independent of the University, is yet conducted in connection with it.

The office of Regent was discontinued June 12, 1878, at which time Henry H. White was elected President of the University. He filled this office until, on his voluntary resignation of the presidency in June of 1880, Charles Louis Loos was elected to the place he still fills.

Board of Curators

of

Kentucky University.

WILLIAM L. WILLIAMS	Hustonville.
ZACHARY F. SMITH	Louisville.
HORACE MILLER	Paris.
THOMAS MUNNELL	Atlanta, Ga.
JOHN S. SWEENEY	Paris.
JAMES M. GRAVES	Versailles.
WILLIAM MITCHELL	Mt. Sterling.
JOHN B. WALLACE	Lexington.
ROBERT McMICHAEL	Lexington.
JOHN L. CASSELL	Harrodsburg.
JOHN T. HINTON	Paris.
JAMES L. NEAL	Harrodsburg.
JAMES L. STOCKDELL	Lexington.
PHILEMON P. PARRISH	Midway
WILLIAM W. ESTILL	Lexington.
JEREMIAH R. MORTON	Lexington.
ALBERT ALLEN	Lexington.
JAMES D. HAZELRIGG	Mt. Sterling.
CHARLES P. WILLIAMSON	Atlanta, Ga.
JOHN S. PHELPS	Lexington.
JOHN D. HARRIS	Richmond.
EDWARD L. POWELL	Louisville.
BENJAMIN L. COLEMAN	Lexington.
WILLIAM T. WITHERS	Lexington.
JAMES B. JONES	Lexington.
GEORGE B. NELSON	Winchester.
JOHN C. MAY	Lexington.
JOHN T. VANCE	Lexington.
MARK COLLIS	Lexington.
WILLIAM S. DICKINSON	Cincinnati, Ohio.
HENRY S. HALE	Frankfort.
WILLIAM H. GRAHAM	Lexington.

Officers of the Board.

JOHN S. SWEENEY, CHM'N. JAMES B. JONES, SEC'Y.
HENRY H. WHITE, TREASURER.

Executive Committee.

JAMES M. GRAVES, CHM'N. JAMES B. JONES, SEC'Y.
JOHN S. PHELPS. JOHN T. VANCE.
JOHN B. WALLACE.

Board of Trustees

of the

College of the Bible.

JOHN B. McGINN	Versailles.
ROBERT McMICHAEL	Lexington.
JONATHAN B. MORTON	Lexington.
JAMES L. NEAL	Harrodsburg.
JOHN B. WALLACE	Lexington.
GEORGE W. YANCEY	Cynthiana.
ALFRED FAIRHURST	Lexington.
ALEXANDER H. SHROPSHIRE	Lexington.
JOHN T. VANCE	Lexington.
CHARLES A. BAKER	Lexington.
JAMES M. LOGAN	Lexington.
MARK COLLIS	Lexington.
JAMES B. JONES	Lexington.
BENJAMIN M. ARNETT	Nicholasville.
JOHN G. ALLEN	Lexington.

Officers of the Board.

JOHN B. McGINN, CHM'N. MARK COLLIS, SEC'Y.
JOHN T. VANCE, TREASURER.

Executive Committee.

ALEX. H. SHROPSHIRE, CHM'N. MARK COLLIS, SEC'Y.
JOHN G. ALLEN. JAMES M. LOGAN.
JOHN B. WALLACE.

Members of the Faculties.*

CHARLES LOUIS LOOS, LL.D.,

President of the University, *ex-officio* Presiding Officer of the College of Liberal Arts and Professor of the Greek Language and Literature.

ROBERT GRAHAM, A. M.,

President of the College of the Bible and Professor of Mental, Moral and Political Philosophy.

HON. JOSEPH D. HUNT,

Presiding Officer of the College of Law and Professor of Equity, Jurisprudence and Law of Contracts.

WILBUR R. SMITH,

Presiding Officer of the Commercial College.

HENRY H. WHITE, LL.D.,

Professor of Mathematics and Astronomy.

JOHN W. McGARVEY, A. M.,

Professor of Sacred History and Evidences of Christianity.

ALEXANDER R. MILLIGAN, A. M.,

Professor of the Latin Language and Literature.

EPHRAIM W. SMITH,

Associate Principal of the Commercial College.

ISAIAH B. GRUBBS, A. M.,

Professor of Sacred Literature and Homiletics.

ALFRED FAIRHURST, A. M.,

Professor of Natural Science.

DAVID G. FALCONER, LL.B.,

Professor of Common Law, Real and Personal Property.

*The Presiding Officers are named in the order of the organization of the colleges: other members in the order of their appointment to their present positions.

JOHN T. SHELBY, A. M.,

Professor of Pleading, Evidence and Practice.

JOHN R. ALLEN, LL.B.,

Professor of Constitutional, Mercantile and Criminal Law.

CHARLES J. KEMPER, A. M.,

Professor of the French and German Languages, and of Civil Engineering.

CLARENCE C. FREEMAN, A. M.,

Professor of the English Language and Literature.

RICHARD H. ELLETT, A. M.,

Professor of Sacred History and Evidences of Christianity.

WALTER G. CONLEY, A. M.,

Adjunct Professor of English.

—o—

Other Instructors and Officers.

RICHARD H. ELLETT, A. M.,

Principal of the Academy.

WALTER G. CONLEY, A. M.,

Assistant in the Academy.

HENRY LLOYD, B. S.,

Assistant in the Academy.

Teacher of Elocution.

Teacher of Vocal Music.

HOWARD CRAMBLET,

Librarian.

College of Liberal Arts.

Faculty.

CHARLES LOUIS LOOS, LL. D., Presiding Officer.
ROBERT GRAHAM, A. M.,
HENRY H. WHITE, LL. D.,
ALEXANDER R. MILLIGAN, A. M.,
ALFRED FAIRHURST, A. M.,
CHARLES J. KEMPER, A. M.,
CLARENCE C. FREEMAN, A. M.,
RICHARD H. ELLETT, A. M.,
WALTER G. CONLEY, A. M.

Matriculates.

Resident Graduates.

ANDREW JACKSON ELLETT, A. B.....Chillicothe, Mo.
SAMUEL JAMES HALLEY, A. M.....White Sulphur.

Undergraduates.

ALEXANDER, JOHN MADISON.....Muir.
ALLEN, JAMES ALBERT.....Chenault.
ALLISON, HENDERY.....Jeffersonville, Ind.
ARNETT, WILLIAM ELLISON.....Faywood.
BACON, TYREE JAMES.....Tuckahoe.
BAKER, CAL WILLIAMSON.....Lexington.
BARTON, ROSE MERCER.....Milroy, Ind.
BATEMAN, CLARENCE MONROE.....Lexington.
BEASLEY, LETCHER.....Lexington.
BEATTY, WALLACE APPLETON.....Lexington.
BICKERS, EDDIE.....Lexington.
BLAND, THOMAS LELAND.....Vandalia, Mo.
BLAND, WARREN WILSON.....Vandalia, Mo.
BOSWELL, CLARENCE JESSE.....Lexington.
BOSWORTH, EDWARD POWELL.....Fort Spring.
BOWMAN, THOMAS GREELEY.....Russell Cave.
BRADLEY, ERNEST BRENNAN.....Lexington.
BREITENBUECHER, PHILIP WILLIAM.....Atlanta, Ga.
BROCK, HARVEY HENRY.....Lexington.

BROWN, ELI HUSTON.....Owensboro.
BROWN, FRANK HYMAN.....Hamilton, N. C.
BROWN, JOSEPH STARETT.....Glass, Tenn.
BROWN, MAURY BRIGHT.....Glass, Tenn
BROWNING, GEORGE THOMAS.....Jericho.
BUCHANAN, JEREMIAH MORTON.....Milton.
BULLOCK, SAMUEL ARCHIBALD.....Lexington.
BULLOCK, WALLER OVERTON.....Lexington.
BURGUIERES, JOSEPH EUGENE.....Louisa, La.
BURNS, MARY JULIA.....Lexington.
BUSH, JAMES RICHARD.....Stanford.
BUSTER, JOHN SHELBY.....Falconer Station.
BUTLER, CORA ELMA.....Lexington.
BUTTON, BLAND BALLARD.....Westport.
CALDWELL, HERBERT WILLIAM.....Rushville, Ind.
CALVERT, WILLIAM JEPHTHA.....Lexington.
CARDWELL, MARY FRANCES.....Lexington.
CARDWELL, WILLIAM WALKER.....Petona.
CARPENTER, GEORGE LEE.....Milledgeville.
CARROLL, STEPHEN ARTHUR.....Spears.
CARTER, CHARLES.....Williamstown.
CASE, DANIEL MORRIS.....Lexington.
CASSELL, JENNIE NEET.....Lexington
CASSELL, JOSEPH BRYAN.....Harrodsburg.
CHOWNING, GEORGE SMITH.....Shelbyville.
CHRISTIAN, THOMAS ALFRED.....Lexington.
CHURCH, JOHN GRAHAM.....Peak's Mill.
CLORE, ARTHUR HODGES.....Skylight.
COFFEE, ALPHONSO JAMES.....Big Springs, Texas.
COLLINS, NANNIE RAY.....Lexington.
CONLEY, ADOLPHUS BOOKER.....Decatur, Texas.
CONNER, LEMUEL KING.....Simpsonville.
COOK, CHARLES PROCTOR.....Mt. Carmel.
COOKE, PETER MOLLOY.....Germantown.
CRABTREE, WILLIAM EDGAR.....Lexington.
CROSTHWAIT, HARRY MILLER.....Lexington.
CRYSTAL, ERNEST LINWOOD.....Chilesburg.
CRYSTAL, ETTIE MARSHALL.....Chilesburg.
CUNNINGHAM, PETER LEMUEL.....Armstrong, Ill.
DARNALL, GEORGE WASHINGTON.....Weston, Texas.
DARNALL, JOHN THOMAS.....Weston, Texas.
DAVIS, PRESTON SEAMANDS.....Bentonville, Ark.
DAVIS, ROSS WHEATLY.....Waxahachie, Texas.
DEAN, SAMUEL CRUTCHER.....Little Hickman.
DE JARNETTE, JOHN BRENT.....Williamstown.
DICKERSON, THOMAS LOGAN.....Spokane, Wash.
DONALDSON, CHARLES WOODWARD.....Clintonville.
DOUGLAS, FRANCIS BRECKINRIDGE.....Lexington.

DURHAM, FINLEY DENNY.....Mt. Olivet.
EALS, ALBERT SYDNEY.....Ruddell's Mills.
EDMONSON, SAMUEL BOONE.....Chicago, Ill.
EDWARDS, WARREN BERRY.....Perryville.
ELLIOTT, ETHYL.....Paris, Texas.
EMBRY, WILLIAM SHANKS.....Stanford.
ERB, CLARENCE GLEASON.....Bowmansville, N. Y.
EUDALEY, ROXA HELEN.....Nebo.
EVANS, JAMES ALBERT.....Fort Worth, Texas.
FAIRHURST, MARY HOLMAN.....Lexington.
FARIS, DERRICK WARNER.....Lexington.
FARIS, NETTA.....Lexington.
FISHBACK, IDA MCMILLAN.....Lexington.
FORMAN, MICHAEL DONOHOO.....Lexington.
FULTON, EDWIN L.....Harper, Kan.
GARRISON, HENRY CLAY.....Roanoke, Va.
GOODE. CLARA LEE.....Lexington.
GORE, BENJAMIN STONE.....Bloomfield.
GRAVES, CLARENCE OSBORN.....Georgetown.
GREEN, JOHN TAYLOR.....Frankfort.
GREENWOOD, HARRY MARSHALL.....Invercargill, N. Z.
GREHAN, ENOCH.....Lexington.
GRIEVE, ROBERT.....Kirkcaldy, Scotland
HAGAN, CHARLES YATES.....Eminence.
HALL, CHARLES MILFORD.....Dexter, Mo.
HALLEY, HENRY HAMPTON.....White Sulphur.
HAMILTON, LUCY GRACE.....Lexington.
HAMILTON, ROBERT BROWNING.....Lexington.
HAMILTON, THOMAS SMITH.....Lexington.
HANCOCK, ELMER HENDRICKS.....Lexington.
HANCOCK, ERNEST ASA.....Bedford.
HAWKINS, JOHN SOUTH.....Lexington.
HAWKINS, MARY INEZ.....Lexington.
HAYES, ROGER BURCHARD.....Donerail.
HAYS, FLEAT MILTON.....Lexington.
HELM, ERNEST WHITE.....Lexington.
HENDERSON, JAMES WOOLFOLK.....Lexington.
HIGGINBOTHAM, JOSEPH EMMANUEL.....Bryantsville.
HIGGINBOTHAM, WILLIAM WALKER.....Bryantsville.
HOCKER, RICHARD COBB.....Stanford.
HOLLADAY, MILTON WOOLFOLK.....Beckner sville.
HOLTON, THOMAS HAMILTON.....Tuckahoe.
HOUPE, JOHN RUFUS.....Statesville, N. C.
HUFFMAN, OLIVE ELLIS.....Lexington.
HUGHES, EDWARD ELLIOTT.....Lexington.
HUMPHREY, AMBROSE WESLEY.....Middleburgh.
HUNT, MARIA LOUISE.....Prairie du Chien, Wis.
HUNT, MARY LAMBERT.....Lexington.

HUNT, WALLER BULLOCK.....Lexington.
KEARNEY, WILLIAM THOMAS.....Russell Cave.
KEMPER, GEORGE WHITEFIELD.....Lexington.
KEMPER, GRAHAM HAWES.....Lexington.
KEMPER, MATTHEW FONTAINE MAURY.....Lexington.
KENNEY, FRANKLIN PULLEN.....Paris.
KLINGMAN, GEORGE ADAM.....Louisville.
LAWSON, JOHN RIAL.....Chilesburg.
LEE, BIVEN DUVAL.....Harvieland.
LISLE, HAMPTON HALLEY.....Lexington.
LLOYD, DANIEL.....Germantown.
LLOYD, HALLIE HORACE.....Franklin, Mo.
LLOYD, HENRY.....Germantown.
LOGAN, SARAH FRANCES.....Lexington.
LOOS, EMMA WALLACE.....Louisville.
LOOS, ROSETTA ERINA.....Louisville.
LUCAS, CAVE DESHA.....Paris.
LYLE, EDWIN STEPHENS.....Lexington.
LYNE, ROBERT BAILOR.....Cynthiana.
MADDOX, JOSEPH HERBERT.....Shelbyville.
MARRS, IDA MAY.....Lexington.
MATHIS, JULIA CASSANDRA.....Fort Spring.
MAY, CHARLES BRENT.....Lexington.
MAY, HENRY SHAWHAN.....Lexington.
MCCLELLAN, MARY CARSWELL.....Lexington.
MCCOUN, LUCY.....Farmdale.
MCKEY, EARL SINCLAIR.....Valdosta, Ga.
MCKEY, THOMAS HOWARD.....Valdosta, Ga.
MCLAUGHLIN, MITCHELL ERVIN.....Smyrna, Tenn.
MCVEY, JOSEPH MOLER.....Cane Ridge.
MILTON, MINNIE MAY.....Carthage, Mo.
MITCHELL, DAYTON THOMAS.....Smithfield.
MOORE, DUDLEY BOWMAN.....Harrodsburg.
MOORE, HORTON.....Paris.
MOORE, WILLIAM.....Shawhan.
MYERS, JOHN ROBERTSON.....Lexington.
MYERS, LYDIA BELLE.....Lexington.
NEWMAN, JESSAMINE.....Muir.
NEWMAN, WILLIAM ARNOLD.....Muir.
NICHOLS, DANIEL BRITTON.....Lexington.
NORTON, FREDERICK THOMAS OWEN.....Cardigan Bridge, P.E.I.
NUCKOLS, LEWIS ALLEN.....Versailles.
O'MALLEY, FREDERICK WILLIAM.....Fort Erie, Canada.
PATTERSON, NEWTON REID.....Lexington.
PATTERSON, SAMUEL BURRIE.....Fort Spring.
PEARSON, MARGARET EMMA.....Lexington.
PEARSON, OLOF.....Lexington.
PECK, JAMES BELFIELD.....Milton.

PERRY, EDWARD RANDOLPH.....Cincinnati, Ohio.
PRATHER, JAMES STANLEY.....Shannon.
PRICE, CLIFFORD HOLMES.....Lexington.
PRICE, MILTON CARL.....Florence.
RAMSEY, HARRY PORTER.....Stanford.
RENICK, HARRY.....Lexington.
RIELLY, ANNIE ARMER.....Lexington.
RIFFE, JESSE MCKEE.....Hustonville.
ROBISON, HENRY BARTON.....Watkinsville, Ga.
SHANNON, JAMES THOMAS.....Lexington.
SHAW, CLARENCE MILLER.....Jett.
SHAW, HENRY PLEASANTS.....Lexington.
SHELBY, EVAN.....Lexington.
SHERLOCK, WILLIAM.....Donerail.
SHROPSHIRE, EARL FLOURNOY.....Oxford.
SHROPSHIRE, JOHN JAMES ROUSSEAU.....Oxford.
SIMPSON, ROBERT NEAL.....Lexington.
SMITH, JOSEPH CLINTON.....Lowe's.
SNYDER, GEORGE BAKER.....Odessa, Mo.
SNYDER, ROBERT MCCLURE.....Kansas City, Mo.
SOPER, JOHN.....Little Rock.
SOUSLEY, CHARLES SAMUEL.....Elisaville.
SOUSLEY, HARRISON MCCLINTOCK.....Elisaville.
SOUSLEY, JAMES HIGHLAND.....Tilton.
SPICER, EDWARD VIRGIL.....Ghent.
SPIEGEL, OSCAR PENDLETON.....Falkville, Ala.
STAPLES, CHARLES RICHARD.....Lexington.
STEVES, LIZZIE CHRISTINE.....Lexington.
STIVERS, HAMLETT.....Weston, Texas.
STOCKDELL, ANNA BELLE.....Lexington.
STONE, JAMES WILLIAM.....Little Rock.
STONE, SAMUEL NEWTON.....Bethel.
STOUT, LEER.....Paris.
SURBER, LEE ELLWOOD.....Lexington.
SWEENY, WILLIAM OGLESBY.....Lexington.
TANNER, FLORENCE.....McKinney.
TANNER, MOSES.....McKinney.
TAYLOR, WILLIAM BROOKS.....Lexington.
TERRY, JAMES ENOCH.....Side View.
THOMAS, CLARENCE FRANKLIN.....Frankfort.
THOMPSON, EDWIN HOSS.....Midway.
TINSLEY, ZELA RACHEL.....Buffalo, Mo.
TURNER, JAMES OLLIE.....Paris.
UTTERBACK, TYLER ELLIOTT.....Ripley, Ohio.
VANARSDALL, KATHARINE CLIFFORD.....Harrodsburg.
WALKER, FRANK PULLEN.....Paris.
WALLACE, CHARLTON.....Lexington.
WARNER, EVAN TAYLOR.....Lexington.

WEEKS, JOHN HALL.....Lexington.
WELLS, WILLIAM THOMAS.....Bethlehem.
WHITE, RICHARD ALBERT.....Cave City.
WILLIAMS, GEORGE DOLAN.....Payne's Depot.
WILSON, LUCY JANE.....Lexington.
WILSON, VANCE HUGHES.....Salvisa.
WITHERS, RODNEY SMITH.....Cynthiana.
WOOLFOLK, JOHN HARRIS.....Lexington.
YOUNG, ROBERT BRUCE.....Bonham, Texas.

Degrees Conferred June 8, 1893.

Bachelor of Arts.

WILLIAM JEPHTHA CALVERT.....Kentucky.
WILLIAM EDGAR CRABTREE.....Kentucky.
PETER LEMUEL CUNNINGHAM.....Illinois.
HENRY CLAY GARRISON.....Virginia.
ROBERT GRIEVE.....Scotland.
MATTHEW FONTAINE MAURY KEMPER.....Kentucky.
MITCHELL ERVIN MCLAUGHLIN.....Tennessee.
JOSEPH MOLER MCVEY.....Kentucky.
FREDERICK THOMAS OWEN NORTON.....Prince Edward Island.
HENRY BARTON ROBISON.....Georgia.
EVAN SHELBY.....Kentucky.
EDWARD VIRGIL SPICER.....Kentucky.
WILLIAM BROOKS TAYLOR.....Kentucky.
JAMES ENOCH TERRY.....Kentucky.
TYLER ELLIOTT UTTERBACK.....Ohio.
KATHARINE CLIFFORD VANARSDALL.....Kentucky.

Bachelor of Science.

HARVEY HENRY BROCK.....Kentucky.
SAMUEL JAMES HALLEY, A. M.....Kentucky.
GEORGE WHITEFIELD KEMPER.....Kentucky.
HENRY LLOYD.....Kentucky.

Civil Engineer.

SAMUEL JAMES HALLEY, A. M.....Kentucky.
WILLIAM ARNOLD NEWMAN.....Kentucky.

Master of Arts.

ANDREW JACKSON ELLETT.....Missouri.

Course of Instruction.

I. School of the Greek Language and Literature.

PROFESSOR LOOS.

Freshman Class.

FIRST TERM—Xenophon's Anabasis; Herodotus; Greek New Testament once a week.

SECOND TERM—Homer's Iliad; History of Greece once a week.

Sophomore Class.

FIRST TERM—Xenophon's Memorabilia; Plato's Apology and Crito; History of Greece once a week.

SECOND TERM—Thucydides; Greek New Testament once a week.

Junior Class.

FIRST TERM—Demosthenes (Olynthiacs and Philippics); Theocritus.

SECOND TERM—Euripides (Medea) or Sophocles (Œdipus Tyrannus); Æschylus (Furies).

History of Greek Literature during the session.

Senior Class.

Selections from the Greek Scriptures, with Exegesis.

TEXT-BOOKS—Goodwin's Selections from Xenophon and Herodotus; Seymour's Homer's Iliad; Morris's Thucydides; Winans' Xenophon's Memorabilia; Tyler's Plato's Apology and Crito; Allen's Medea; White's Œdipus Tyrannus; Drake's Eumenides; Smith's History of Greece.

Every student should have Liddell & Scott's Greek Lexicon, Anthon's or Smith's Classical Dictionary and Kiepert's Atlas Antiquus.

II. School of the Latin Language and Literature.

PROFESSOR MILLIGAN.

Freshman Class.

FIRST TERM—Cæsar, Books IV., VI.; Sallust, the Catiline begun.

SECOND TERM—Sallust, the Catiline completed; Cicero, three Orations.

Prose composition twice a week during the session.

Sophomore Class.

FIRST TERM—Virgil, select Eclogues and Books I., II., IV., VI. of the Æneid, with Prosody.

SECOND TERM.—Cicero, the De Amicitia; Livy, the Preface and parts of Books XXI., XXII.

Prose composition and History of Rome once a week each during the session.

Junior Class.

FIRST TERM—Horace, select Odes, Epodes, Satires and Epistles.
SECOND TERM—Tacitus, the Germania, the Agricola and parts of the Annals; select poems of Catullus.

Senior Class.

FIRST TERM—Early Latin; Plautus, the Trinummus; Lucretius, Books I., V.
SECOND TERM—Cicero, Book V. of the Tusculan Disputations; Juvenal, Satires I., III., VIII., X., XIV.
History of Roman Literature once a week during the session.

TEXT-BOOKS—Kelsey's Cæsar; Allen's Latin Composition: Herbermann's Sallust's Catiline; Allen and Greenough's Cicero's Orations; Greenough's Bucolics and Æneid of Virgil: Leighton's History of Rome; Kelsey's Cicero de Amicitia: Lord's Livy: Anthon's Horace and Tacitus; Simpson's Catullus; Allen's Remnants of Early Latin; Cruttwell's History of Roman Literature; Harrington's Plautus; Kelsey's Lucretius; Klotz's Cicero's Tusculan Disputations; Anthon's Juvenal.
Every student should have Harper's Latin Dictionary, Anthon's or Smith's Classical Dictionary, and Kiepert's Atlas Antiquus.

III. School of Mathematics.

PROFESSOR WHITE.

Freshman Class.

FIRST TERM—Peck's Algebra to Chapter XI.
SECOND TERM—Algebra completed; Peck's Geometry to Book VI.

Sophomore Class.

FIRST TERM—Peck's Geometry completed; Peck's Trigonometry, Plane and Analytical: Peck's Mensuration: Loomis's Surveying.
SECOND TERM—Peck's Analytical Geometry, Part I.

Junior Class.

FIRST TERM—Peck's Mechanics: Peck's Spherical Trigonometry.
SECOND TERM—Snell's Olmsted's Astronomy.

Senior Class.

FIRST TERM—Peck's Analytical Geometry, Part II.; Peck's Differential Calculus.
SECOND TERM—Peck's Integral Calculus; Applications of the Calculus to Mechanics and Astronomy.

IV. School of the English Language and Literature.

PROFESSOR FREEMAN,

ADJUNCT PROFESSOR CONLEY.

Freshman Class.

FIRST TERM—Montgomery's History of England; Whitney's Essentials of English Grammar begun, with Exercises in Composition.

SECOND TERM—Whitney's Essentials completed, with Exercises in Composition.

Sophomore Class.

FIRST TERM—Clark's Rhetoric begun, with Exercises in Composition.

SECOND TERM—Clark's Rhetoric completed, with Exercises in Composition; Shaw's History of English Literature.

Junior Class.

FIRST TERM—Critical Reading of English Prose; Minto's Manual of English Prose Literature for reference.

SECOND TERM—Critical Reading of English Poetry, with special attention to Dramatic Poetry.

Senior Class.

FIRST TERM—Historical English Grammar based upon selections from Sweet's Anglo-Saxon Reader and First Middle English Primer.

SECOND TERM—Lounsbury's History of the English Language; Chaucer, Prologue and Knightes Tale (Skeat-Morris); Spenser, Faery Queen, Book I. (Kitchin).

V. School of Natural Science.

PROFESSOR FAIRHURST.

Freshman Class.

FIRST TERM—Anatomy and Physiology.

SECOND TERM—Natural Philosophy, with Experimental Illustrations.

Junior Class.

FIRST TERM—Chemistry, with Laboratory Work.

SECOND TERM—Zoology and Botany.

Senior Class.

FIRST TERM—Mineralogy and Geology.

SECOND TERM—Analytical Chemistry, with two hours' work daily in the Laboratory.

TEXT-BOOKS—Martin's Human Body; Gage's Elements of Physics; Shepard's Elements of Chemistry; Gray's School and Field Book of Botany; Orton's Zoology; Elderhorst's Blowpipe Analysis; Dana's New Text-book of Geology; Prescott and Johnson's Qualitative Chemical Analysis.

VI. School of Sacred History and Evidences of Christianity.

PROFESSOR ELLETT.

FIRST TERM—Selections from the Pentateuch and the Later Historical Books of the Old Testament.

SECOND TERM—Gospels and Acts of Apostles; Evidences of Christianity.

TEXT-BOOKS—The Revised Version of the Old and New Testament; Fisher's Manual of Christian Evidences.

VII. School of Mental, Moral and Political Philosophy.

PROFESSOR GRAHAM.

Junior Class.

FIRST TERM—Coppee's Logic; Haven's Mental Philosophy begun.

SECOND TERM—Haven's Mental Philosophy completed.

Senior Class.

FIRST TERM—Wayland's Moral Science; Wayland's Political Economy begun.

SECOND TERM—Wayland's Political Economy completed; Alden's Civil Government.

Every student should have Bowen's Hamilton's Metaphysics; Bowen's Logic; Story on the Constitution; Fleming and Krauth's Vocabulary of the Philosophical Sciences.

VIII. School of Modern Languages.

PROFESSOR KEMPER.

French.

Junior Class.

FIRST TERM—Chardenal's Complete Course begun; Super's French Reader.

SECOND TERM—Chardenal's Complete Course completed; Whitney's French Reader; Hugo's Bug Jargal.

Senior Class.

FIRST TERM—Whitney's French Grammar; Lamartine's Jeanne d'Arc; Racine.

SECOND TERM—Corneille; Moliere; Voltaire; Hudson's French Literature.

German.

Junior Class.

FIRST TERM—Joynes-Otto's German Lessons begun; Joyne's German Reader.

SECOND TERM—Joynes-Otto's German Lessons completed; Brandt's German Reader.

Senior Class.

FIRST TERM—Joynes-Meissner's German Grammar; Fouque's Undine; Schiller's Wilhelm Tell.

SECOND TERM—Joynes-Meissner's German Grammar completed; Schiller's Wilhelm Tell and Jungfrau von Orleans; Lessing's Minna von Barnhelm; History of German Literature.

IX. School of Civil Engineering.

PROFESSOR KEMPER.

The full course embraces the following subjects:

Mathematics—The entire course.

Natural Science—Natural Philosophy; Chemistry; Geology; Mineralogy.

In addition to the above, as belonging to the department proper, the following scheme of studies, in two divisions:

FIRST DIVISION.

Free and Mechanical Drawing; Map Drawing; Gillespie's Roads and Railroads; Henck's Field Book.

SECOND DIVISION.

Church's Descriptive Geometry; Shades, Shadows and Perspective; Merriman's Mechanics of Materials; Wheeler's Civil Engineering.

To study successfully the subjects embraced in the first division, requires that the student shall have passed through the Freshman course and the first term of the Sophomore course in the School of Mathematics, and for the second division some skill in applying the Differential and Integral Calculus.

Order of Recitations.

HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
9	Jun. Phil.	Fr. Lat. Fr. Eng. I. Soph. Math. Jun. Eng. Jun. Phil.	Fr. Lat. Fr. Eng. Soph. Math. Jun. Eng. Jun. Phil.	Fr. Lat. Fr. Eng. Soph. Math. Jun. Eng. Jun. Phil.	Fr. Lat. Fr. Eng. Soph. Math. Jun. Phil.
10	Fr. Math. I. Soph. Grk. Soph. Eng. I. Jun. Lat. Jun. French. Sen. Nat. Sci.	Sen. Grk.	Fr. Math. Soph. Grk. Soph. Eng. Jun. Lat. Jun. French. Sen. Nat. Sci.	Fr. Math. Soph. Grk. Soph. Eng. Jun. French. Sen. Nat. Sci.	Fr. Math. Soph. Grk. Soph. Eng. Jun. Lat. Jun. French. Sen. Nat. Sci.
11	Fr. Nat. Sci. Fr. Eng. II. Soph. Lat. Jun. Ger. Sacr. Hist. Sen. Math.	Fr. Nat. Sci. Fr. Eng. Soph. Lat. Jun. Grk. Jun. Ger. Sacr. Hist. Sen. Math.	Sen. Grk.	Fr. Nat. Sci. Fr. Eng. Soph. Lat. Jun. Grk. Jun. Ger. Sacr. Hist. Sen. Math.	Fr. Nat. Sci. Fr. Eng. Soph. Lat. Jun. Grk. Jun. Ger. Sacr. Hist.
12	Fr. Grk. Fr. Math. II. Soph. Eng II Jun. Math. Sen. Lat. Sen. Ger.	Fr. Grk. Fr. Math. Soph. Eng. Jun. Math. Sen. Ger.	Fr. Grk. Fr. Math. Soph. Eng. Jun. Math. Sen. Lat. Sen. Ger.	Sen. Grk.	Fr. Grk. Fr. Math. Soph. Eng. Jun. Math. Sen. Lat. Sen. Ger.
2	Jun. N. Sci. Sen. Eng. Sen. French.	Jun. N. Sci. Sen. French.	Jun. N. Sci. Sen. Eng. Sen. French.	Jun. N. Sci. Sen. Eng. Sen French.	
3	Fr. Eng. III. Sen. Phil. Civ. Engin.	Fr. Eng. Sen. Phil.	Fr. Eng. Sen. Phil. Civ. Engin.	Fr. Eng. Sen. Phil.	Sen. Phil. Civ. Engin.

Difficulties arising from the recitation of two or more classes at the same hour can, in general, be satisfactorily adjusted by any member of the Faculty.

The Classical Course.

The Classical Course, which leads to the degree of Bachelor of Arts, comprises all the studies of the first seven of the schools indicated above (pages 16-20), except those of the Senior Classes in Greek, Latin, Mathematics and English, and of one term of the Senior Class in Natural Science. Studies that may be taken as substitutes are named on page 27.

The subjoined table shows how the Classical Course can be completed in four years:

HOURS OF THE DAY.	CLASSES.	DAYS OF RECITATION.					HOURS A WEEK.
	FIRST YEAR.						
9	Freshman Latin		TU.	W.	TH.	F.	4
10	Freshman Mathematics	M.		W.	TH.	F.	4
11	Freshman Natural Science	M.	TU.		TH.	F.	4
12	Freshman Greek	M.	TU.	W.		F.	4
3	Freshman English	M.	TU.	W.	TH.		4
	SECOND YEAR.						20
9	Sophomore Mathematics		TU.	W.	TH.	F.	4
10	Sophomore Greek	M.		W.	TH.	F.	4
11	Sophomore Latin	M.	TU.		TH.	F.	4
12	Sophomore English	M.	TU.	W.		F.	4
	THIRD YEAR.						16
9	Junior Philosophy	M.	TU.	W.	TH.	F.	5
10	Junior Latin	M.		W.		F.	3
11	Junior Greek		TU.		TH.	F.	3
2	Junior Nat. Sci. 1st Term Junior Nat. Sci. 2d Term	M.	TU.	W.	TH.		8 4
	FOURTH YEAR.						19:15
9	Junior English		TU.	W.	TH.		3
10	Sen. Nat. Sci. (one term)	M.		W.	TH.	F.	4
11	Sacred History	M.	TU.		TH.	F.	4
12	Junior Mathematics	M.	TU.	W.		F.	4
3	Senior Philosophy	M.	TU.	W.	TH.	F.	5
							20:16

The Literary Course.

The Literary Course, which leads to the degree of Bachelor of Literature, comprises the studies of all the schools but the first and ninth, indicated above (pages 16–20), except the studies of one term of the Junior Class and of both terms of the Senior Class in Latin, of the Junior and Senior Classes in Mathematics, and of one term of the Senior Class in Natural Science. Studies that may be taken as substitutes are named on page 28.

The subjoined table shows how the Literary Course can be completed in four years:

HOURS OF THE DAY.	CLASSES.	DAYS OF RECITATION.					HOURS A WEEK.
	FIRST YEAR.						
9	Freshman Latin		TU.	W.	TH.	F.	4
10	Junior French	M.		W.	TH.	F.	4
11	Freshman Natural Science	M.	TU.		TH.	F.	4
12	Freshman Mathematics	M.	TU.	W.		F.	4
3	Freshman English	M.	TU.	W.	TH.		4
	SECOND YEAR.						20
9	Sophomore Mathematics		TU.	W.	TH.	F.	4
10	Sophomore English	M.		W.	TH.	F.	4
11	Sophomore Latin	M.	TU.		TH.	F.	4
2	Junior Nat. Sci. 1st Term Junior Nat. Sci. 2d Term	M.	TU.	W.	TH.		8 4
	THIRD YEAR.						20:16
9	Junior Philosophy	M.	TU.	W.	TH.	F.	5
10	Junior Latin (one term) Senior Nat. Sci. (one term)	M. M.		W. W.	TH.	F. F.	3:4
11	Junior German	M.	TU.		TH.	F.	4
2	Senior French	M.	TU.	W.	TH.		4
	FOURTH YEAR.						16:17
9	Junior English		TU.	W.	TH.		3
11	Sacred History	M.	TU.		TH.	F.	4
12	Senior German	M.	TU.	W.		F.	4
2	Senior English	M.		W.	TH.		3
3	Senior Philosophy	M	TU.	W.	TH.	F.	5
							19

The Scientific Course.

The Scientific Course, which leads to the degree of Bachelor of Science, comprises all the studies of the last seven of the schools indicated above (pages 16–20), except those of the Senior Class in English and of the School of Civil Engineering. Studies that may be taken as substitutes are named on page 28.

The subjoined table shows how the Scientific Course can be completed in four years:

HOURS OF THE DAY.	CLASSES.	DAYS OF RECITATION.					HOURS A WEEK.
	FIRST YEAR.						
9	Freshman English.....		TU.	W.	TH.	F.	4
10	Junior French.....	M.		W.	TH.	F.	4
11	Freshman Natural Science	M.	TU.		TH.	F.	4
12	Freshman Mathematics..	M.	TU.	W.		F.	4
	SECOND YEAR.						16
9	Sophomore Mathematics		TU.	W.	TH.	F.	4
10	Sophomore English.....	M.		W.	TH.	F.	4
11	Sacred History.....	M.	TU.		TH.	F.	4
2	Senior French.....	M.	TU.	W.	TH.		4
	THIRD YEAR.						16
9	Junior Philosophy.....	M.	TU.	W.	TH.	F.	5
11	Junior German.....	M.	TU.		TH.	F.	4
12	Junior Mathematics.....	M.	TU.	W.		F.	4
2	Junior Nat.Sci. 1st Term Junior Nat. Sci. 2d Term	M.	TU.	W.	TH.		8 4
	FOURTH YEAR.						21:17
9	Junior English.....		TU.	W.	TH.		3
10	Senior Nat.Sci. 1st Term Senior Nat. Sci. 2d Term	M.		W.	TH.	F.	4 8
11	Senior Mathematics.....	M.	TU.		TH.		3
12	Senior German.....	M.	TU.	W.		F.	4
3	Senior Philosophy.....	M.	TU.	W.	TH.	F.	5
							19:23

Special Courses.

Students that do not intend to take a degree may, with the consent of the Faculty, select their own course of study.

Selection of Classes.

Students are not required to take all their classes in the same

year of the course, but are permitted to enter that class of any school for which their attainments qualify them.

Recitations.

Each recitation of every class occupies an hour.

The number of recitations of each student must be at least twelve a week. More can, in most cases, be profitably attended: only in exceptional cases is a smaller number permitted.

Rules of Conduct.

It is presumed that every one qualified to enter the University as a student knows the first principles of morality, propriety and decorum, and that it is, therefore, unnecessary to prescribe a complete code of regulations. But it is required of a student—

1. That he shall study diligently; that he shall attend worship, recitations, examinations and all other University exercises punctually, and that, for any delinquency on his part, he shall render a reason to the proper officers promptly.

2. That he shall neither enter nor leave a class without permission from the Faculty.

3. That he shall treat all persons, and especially the officers of the University, with becoming respect.

4. That he shall not trespass on the premises of any one, and that he shall in no way injure the property of the University.

5. That he shall not attend any exhibition of immoral tendency, nor any racefield, theatre, circus, billiard saloon, bar-room or tippling-house.

6. That he shall neither introduce upon the premises of the University nor use, there or elsewhere, intoxicating drink; and that he shall not use tobacco in the buildings of the University.

7. That he shall neither keep nor use fire-arms, a dirk, a bowie-knife or any other deadly weapon.

8. That he shall abstain from profanity, from the desecration of the Lord's day, from gaming for reward or prize of any kind, and from card playing even for amusement; also from whatever else is inconsistent with good order, good taste and good morals.

9. That he shall attend public service at some church every Lord's day, and worship in the Chapel every school day.

10. That he shall not go beyond the immediate precincts of Lexington during the session without permission of the Faculty, or, when this cannot be obtained, without the consent of the President.

11. That he shall not leave the University without the special permission of the Faculty until he is regularly dismissed at the close of the session.

12. That he shall not belong to any secret college society or association that has not been approved by the Faculty.

13. That he shall not change his place of lodging or boarding without permission of the Faculty.

14. That he shall faithfully observe the by-laws adopted by the Faculty for the discipline and government of students.

15. That he shall shun and discountenance disorderly combinations of students and citizens, and that he shall co-operate with the Faculty in every way to promote the interests of the University.

16. That he shall not be noisy in or about the University buildings; and that he shall not play on the grounds except during the hours appointed by the Faculty for recreation, or near the College buildings at any time.

17. That he shall not sign any petition or other paper to the Board or the Executive Committee in regard to the government of the University, or to the appointment or dismissal of professors or officers; and that he shall not attend or give countenance to any meeting to criticise the government of the University.

Miscellanea.

Admission.

Every applicant for admission into the College of Liberal Arts must present satisfactory evidence of good moral character; and if previously connected with any college or academy, a certificate of honorable dismission therefrom.

For admission into this college, the student must be at least fourteen years of age, and must be qualified for admission to at least one Freshman Class. Applicants not thus prepared will be enrolled as students in the Academy.

To enter the Freshman Class in any school, the candidate should give evidence of a fair acquaintance with the preparatory course, or its equivalent, of that school, as laid down in the Academic Course of Instruction.

Examinations and Reports.

There are two kinds of examinations—the first in connection with the daily lecture or recitation, the second at the close of each term.

After examination a number is placed opposite to the name of the student, designating the estimated value of his exercise. From these numbers the scholarship of each student is estimated at the end of each term, and a report thereof sent to his parent or guardian.

In this report, which contains an estimate of the student's conduct also and a record of his absences, one hundred denotes perfect merit, and seventy-five the lowest that entitles the student to regular standing in a class.

Any student, the average of whose daily recitations in any study is not less than ninety, may be excused from the term examination and from any other general examination in that study.

Graduation and Degrees.

A student may graduate in any school of the College of Liberal Arts on the following conditions:

1. That he shall have been a member of that school at least one year, and shall have completed in a satisfactory manner all the studies thereof or a fair equivalent.

2. That he shall have habitually observed the rules of the University.

For the degree of BACHELOR OF ARTS the studies of the Classical Course (page 22) are required; except, however, that instead of the Junior Greek, Latin, Mathematics or English, or one term of the Senior Natural Science, any or all of them, a candidate for this degree may elect as a substitute the Senior Greek, Latin, Mathematics or English, or any one class of the School of Modern Languages. He may also elect two substitutes from courses of the College of the Bible, viz., the Freshman, Junior or Senior course in the School of Sacred Literature, and the Junior or Senior Course in the School of Sacred History.

For the degree of BACHELOR OF LITERATURE the studies of the

Literary Course (page 23) are required; except, however, that instead of the course in Latin a candidate for this degree may substitute an equivalent course in Greek. He may also substitute for one term of Junior Latin or Senior Natural Science, or for both terms of Senior English, any or all of them, what will, in the judgment of the Faculty, be an equivalent amount of study selected from the courses of the first eight schools. In the latter substitution he may use the course in Hebrew also in the College of the Bible.

For the degree of BACHELOR OF SCIENCE the studies of the Scientific Course (page 24) are required; except, however, that instead of the course in French or German a candidate for this degree may substitute two years of either Greek or Latin, or one year of each.

A candidate may be admitted to the degree of MASTER OF ARTS on the following conditions:

1. That having received at least one year before in the College of Liberal Arts the degree of Bachelor of Arts, he shall have since maintained a good moral character.

2. That he shall, as a resident graduate or otherwise, have completed to the satisfaction of the Faculty an additional year in any three of the first five schools (pages 16–18); a prescribed course in Civil History, English Literature or Philosophy; and any one of the languages of the following list not already taken for the degree of Bachelor of Arts: Hebrew, French, German, Italian and Spanish.

A candidate may be admitted to the degree of MASTER OF LITERATURE on the following conditions:

1. That having received at least one year before in the College of Liberal Arts the degree of Bachelor of Literature, he shall have since maintained a good moral character.

2. That he shall, as a resident graduate or otherwise, have completed to the satisfaction of the Faculty the studies of the School of Latin or Greek not already taken for the degree of Bachelor of Literature; the Freshman and Sophomore courses of the other of those schools; a prescribed course in Civil History, English Literature or Philosophy; and any one of the languages of the following list not already taken for the degree of Bachelor of Literature: Hebrew, Italian and Spanish.

A candidate may be admitted to the degree of MASTER OF SCIENCE on the following conditions:

1. That having received at least one year before in the College of Liberal Arts the degree of Bachelor of Science, he shall have since maintained a good moral character.

2. That he shall have presented to the Faculty satisfactory evidence of such additional attainments in the Schools of Mathematics, Philosophy and Natural Science, as shall fully correspond to a year's study in each of these schools.

Honors.

All candidates for graduation that complete the Classical, Literary or Scientific Course, with an average scholarship in the College of Liberal Arts of not less than ninety, are designated honor students.

The valedictory is awarded to that candidate for graduation in any of these courses whose average standing is highest; and the salutatory to that candidate whose average standing is next to the highest. But neither the valedictory nor the salutatory can be delivered by one who is not completing his second full session as a matriculate of the College of Liberal Arts.

College of the Bible.

Faculty.

ROBERT GRAHAM, A. M., President,
JOHN W. McGARVEY, A. M.,
ISAIAH B. GRUBBS, A. M.

Matriculates.

ALFORD, WILEY HARRIS.....Jackson, Miss.
APPEL, JOHN CHARLES BEURLE.....London, England.
APPLEMAN, FRIEND JOSEPH MILTON.....Newberry, Pa.
ARMSTRONG, CECIL JOHN.....Melbourne, Australia.
BAKER, WILLIAM.....Burksville.
BARTON, WILLIAM LUCIEN.....Milroy, Ind.
BATEY, JACKSON SMITH.....Smyrna, Tenn.
BEAZLEY, ELIJAH.....Stanford.
BENIANS, FRANCIS HERBERT.....London, England.
BENNETT, ROBERT LEE.....Mayfield.
BENTON, FRANK WILSON.....Holt, Mo.
BERNARD, SAMUEL MINOR.....Louisville.
BERRY, WILBERT RAYMOND.....Ionia City, Mo.
BOATMAN, JOHN ROBERT.....Mexico, Mo.
BOBBITT, JAMES.....Eckerty, Ind.
BOSWELL, IRA MATTHEWS.....Memphis, Tenn.
BRAZELTON, HOWARD JUDSON.....Selma, Ala.
BRINEY, RUSSELL BARKLEY.....Knoxville, Tenn.
BRINEY, WILLIAM NEWTON.....Memphis, Tenn.
BROOKS, CRAYTON SANDERFER.....Lexington.
BROOKS, FRANK.....Connersville, Ind.
BROOKS, WILLIAM TEBBS.....Perry, Mo.
BROWN, JOHN BENJAMIN.....Conyersville, Tenn.
BROWN, JOHN THOMAS.....Alamo, Tenn.
BROWNING, JOHN AMASA.....Sweet Springs, Mo.
BUIS, LEMUEL.....Greencastle, Ind.

BUTCHER, SAMUEL CLAY ..... Ellensburg, Wash.
CALDWELL, JESSE COBB ..... Excelsior Springs, Mo.
CAMPBELL, ROBERT MILLER ..... Bethany, W. Va.
CARTWRIGHT, ROBERT LEE ..... Longwood, Mo.
CAUBLE, WILLIAM COMMODORE ..... Campbellsburg, Ind.
CHANDLER, WILLIAM ROSS ..... Mt. Olivet.
CHEEK, PENDLETON EDWARD ..... Birmingham, Ala.
CLARK, ROGER LAMAR ..... Valdosta, Ga.
CLEMMONS, JOHN GANO ..... South Elkhorn.
CLINE, WALTER FRANKLIN ..... Reese's Mill, Ind.
COFFEE, WILLIAM RILEY ..... Big Springs, Texas.
COURTNEY, ROBERT LEE ..... San Antonio, Texas.
CRABTREE, ROBERT ROWAN ..... Madisonville.
CRAMBLET, HOWARD ..... Wendell, Kan.
CURRY, ELVIN JAMES ..... Truesville.
CURTIS, AUGUSTUS ..... Piqua.
DAVEY, PERCIVAL ARTHUR ..... Hawthorne, Australia
DAVIS, ALLEN TAYLOR ..... Sturgis.
DAVIS, CADER ..... Oakland, Cal.
DAVIS, CLARENCE METCALF ..... Sturgis.
DAVIS, EDGAR CROYSDALE ..... Kansas City, Mo.
DAVIS, JOSEPH HARVEY ..... Little Rock, Mo.
DAVIS, MILES HILLORY HARDING ..... Sturgis.
DE LAY, JAMES ALBERT ..... Sanborn, Ind.
DONALDSON, DAVID YANDELL ..... Normandy.
DONELSON, CHARLES ARVEY ..... Orleans, Ind.
DRASH, LEWIS FRANKLIN ..... Huntingburg, Ind.
EDMONDS, WILLIAM JAMES ..... Dunedin, N. Z.
EGBERT, JAY ..... Cleveland, Ohio.
ELDER, ROBERT WATERS ..... Greenwood, Tenn.
ELLMORE, BENJAMIN FRANKLIN ..... Frankfort, Ind.
ELMORE, FRANK BENJAMIN ..... Lookout, Mo.
ESSON, ALBYN ..... Gervais, Oregon.
EVANS, JOHN JERRY WOODSON ..... Monroe City, Mo.
EWELL, ALBERT EDWIN ..... Denton, Texas.
FARLEY, GEORGE HENRY ..... Lexington.
FINLEY, AUSTIN PERRY ..... Finley, Ala.
FORD, JOEL HADEN ..... Paris.
FORRER, SAMUEL HENRY ..... De Witt, Ark.
FRANK, ROBERT GRAHAM ..... Lancaster.
GAMBOE, WILLIAM SMALLWOOD ..... Winchester.
GARRISON, CHARLES LLOYD ..... Wichita, Kan.
GOWER, EMERSON LEE ..... Valparaiso, Ind.
GREEN, EDWARD ANDREW ..... Elmville.
HALL, ROBERT LEE ..... Bandana.
HAMILTON, EMMET GARVIN ..... South Fincastle, Ohio.
HANCOCK, GEORGE DANDRIDGE ..... Bridgeport.
HAY, JAMES ..... Weimangaroa, N. Z.

HAYWOOD, WILLIAM JOHN.....Waxahachie, Texas.
HENRY, FREDERICK WILLIAM.....Portland, Me.
HILTON, CHARLES.....Louisville.
HILTON, WILLIAM THOMAS.....Louisville.
HOGABOOM, GEORGE BYRON.....Brooklyn, N. Y.
HOPE, ANDREW.....Georgetown, N. Z.
HOSKINS, ISAAC CRITTENDEN.....Lexington.
HOSTETLER, HARRY JACKSON.....Solon, Ind.
HOUZE, ALVIE.....Centre Square, Ind.
HUFFMAN, JAMES WILLIAM.....Lexington.
HUNT, ERNEST.....London, England.
HUTCHINGS, JOHN CLINTON.....Brooklyn, N. Y.
KEEVILL, JOSEPH.....Brooklyn, N. Y.
KENDALL, PERCY MATHES.....Columbus, Ind.
LAMBERT, CARLTON MARSTELLER.....Moorefield.
LAMPKIN, RICHARD HENRY.....Lexington.
LANEHART, FRANK.....Morrow, La.
LEWIS, JOHN CABELL.....Riley, Ark.
LIEFFERT, RUDOLPH ALEXANDER.....Erfurt, Germany.
LONGSTON, JOHN ALBERT.....Cherokee, Kan.
MADDUX, JOHN WILLIAM.....Kissimmee, Fla.
MAHAN, ELMER FINLEY.....Orleans, Ind.
MANIFOLD, GEORGE.....Christchurch, N. Z.
MARR, SHELBY WALLACE.....Plattsburg, Mo.
MARSHALL, JAMES HENRY.....Syria, Ind.
MARSHALL, WILLIAM THOMAS.....Corinth.
MARTIN, EUGENE TAYLOR.....Charleston, Ind.
MARTIN, THACKER QUISENBERRY.....Ford.
MAY, WILLIAM THOMAS.....Gravel Switch.
MAYES, ROBERT BURNS.....Yazoo City, Miss.
MCGEE, JOHN BARTLETT.....Gallatin, Mo.
MCLELLAN, HUGH.....Melbourne, Australia.
MCMAHAN, OLIVER P.....Milton.
MELTON, BENJAMIN HURON.....Pollocksville, N. C.
MERRILL, WILLIAM SAMUEL.....Powersville.
MILLER, JACOB EMANUEL.....Oakwood, Ill.
MILLER, VIVIAN GERARD.....Mathis, Texas.
MILLS, GEORGE WASHINGTON.....Bradfordsville.
MONSON, JOHN THOMAS.....Robertson.
MOORE, IRWIN MONROE.....Madisonville.
MOORE, SAMUEL ALEXANDER.....Bardwell.
NEAL, WALTER AMBROSE.....Union, Ala.
NICHOLSON, CHARLES LEONIDAS.....Maxey's, Ga.
PAYNE, FLOURNOY.....Athens.
PFANSTIEL, MARION.....De Mossville.
PIPER, DAVID RHODES.....Shippensburg, Pa.
PITTMAN, NOAH OLIVER.....Harmony Grove, Ga.
PIXLEY, JAMES WILA.....Friendsville, Ill.

POAGE, CLARENCE HOLTON.....Lenoxburg.
POLSGROVE, HUMPHREY MARSHALL.....Frankfort.
POWAR, JOHN SAMUEL.....Rollings.
POWELL, CHARLES EPPERSON.....Shelby City.
PRUNTY, ROBERT LEE.....Miami, Mo.
RANDOLPH, LEWIS HOMER.....Carbon Hill, Ohio.
RIDDELL, JAMES DUDLEY.....Rothville, Mo.
RIGGS, BARTON ZADOC.....Salem, Oregon.
RILEY, OSCAR WINSTON.....Covington.
ROBERTS, OSCAR HARVEY.....Moorefield.
ROBERTSON, ROBERT HENRY.....Monterey.
ROGERS, FREDERICK MORRIS.....Marionville, Mo.
RUMSEY, WILLIAM WOODGATE.....London, England.
RUSSELL, AUSTIN LOGAN.....Frankfort, Ind.
RUSSELL, CHARLES WILLIS.....Jacksonville, Fla.
SAXBY, HERBERT SAMUEL.....Sidney, N. S. W.
SCHOONOVER, CHARLES MANUEL.....Milltown, Ind.
SCHUBERT, GEORGE HERMAN.....Lexington.
SETLIFF, JOHN ALLEN.....Lexington.
SEVERANCE, JO.....Stanford.
SMITH, EDWARD CALVERT.....Houston, Texas.
SMITH, HARVEY BAKER.....Pendleton.
SMITHER, WINTER SMITH.....Truesville.
SPIEGEL, JAMES EDWARD.....Falkville, Ala.
SPIEGEL, SAMUEL PICKENS.....Falkville, Ala.
STEPHENS, JAMES EDGAR.....Ashland, Mo,
STEVENS, HENRY.....Laurel, Ind.
STOCKER, GREEN COLUMBUS.....Edenton.
STONE, JOHN FREDWELL.....Spencer, Va.
SUTHERLIN, ULYSSES GRANT.....Orleans, Ind.
TANAKA, KIICHI.....Tomioka, Japan.
TANNER, KNACY LUDWELL.....McKinney.
TANNER, NATHAN LYMAN.....Wilhelm, N. Y.
TAUBMAN, GEORGE PRIMROSE.....Cleveland, Ohio.
TAYLOR, ST. JOHN MURRAY.....Sugar Creek.
TERRY, JAMES ENOCH.....Side View.
THOMAS, CHARLES ALLEN.....Melbourne, Australia.
THOMPSON, ALEXANDER CAMPBELL.....Louisville.
TOUTJIAN, VARTAN.....Marash, Asia Minor.
TUDOR, SAMUEL MARCUS.....Cottonburg.
TURNER, WILLIAM FRANKLIN.....Marionville, Mo.
VAN PELT, EDWIN HEWSON.....Parkland.
VEACH, HENRY LAURENCE.....Carlisle.
WALDEN, WILLIAM PRESTON.....Lancaster.
WAGGONER, GEORGE CUNNINGHAM.....Booneville, Tenn.
WAITS, EDWARD MACK.....Shady Nook.
WALKER, WILLIAM GRAHAM.....Selma, Ala.
WALKER, WILLIAM HENRY.....Huddersfield, England.

WARNER, FREDERICK WILLIAM.....Hamilton, Ontario.
WATKINS, GEORGE WILSON.....Buffalo, Mo.
WATKINS, RILEY RANDOLPH.....Bernstadt.
WHITE, BELT.....Louisville.
WHITE, CHARLES HENRY.....Slater, Mo.
WILHITE, LEONIDAS SPURGEON.....Cedar Crossing, Ala.
WILLIAMS, LAWRENCE.....Montpelier.
WILLIAMS, VERTES.....Montpelier.
WILLIAMSON, CLARENCE LINDON.....Atlanta, Ga.
WILLIAMSON, WILSON WALTER.....Sandy Creek, Ala.
WILLIS, ETHRIDGE JACKSON.....Simpsonville.
WINN, LUCIUS ALLISON.....Watkinsville, Ga.
WOOD, WILLIAM ALEXANDER.....Mt. Carmel, Ill.
WOODIN, JOSEPH BUSH.....Lexa, Ark.
YEAGER, JUNIUS BRUTUS.....Pendleton.
YOUNG, TRYON LUMPKIN.....Walnut Grove, Ga.
ZACHARY, JAMES WILLIAM.....Comanche, Texas.

Graduates June 6, 1893.

Classical Course.

CUNNINGHAM, PETER LEMUEL.....Armstrong, Ill.
ROBISON, HENRY BARTON.....Watkinsville, Ga.
SPICER, EDWARD VIRGIL.....Ghent, Ky.
TERRY, JAMES ENOCH.....Side View, Ky.

English Course.

BATEY, JACKSON SMITH.....Smyrna, Tenn.
BROOKS, CRAYTON SANDERFER.....Lexington, Ky.
BROWNING, JOHN AMASA.....Sweet Springs, Mo.
CHEEK, PENDLETON EDWARD.....Birmingham, Ala.
CLARK, ROGER LAMAR.....Valdosta, Ga.
DRASH, LEWIS FRANKLIN.....Huntingburg, Ind.
ELMORE, FRANK BENJAMIN.....Lookout, Mo.
ESSON, ALBYN.....Gervais, Oregon.
EVANS, JOHN JERRY WOODSON.....Monroe City, Mo.
FARLEY, GEORGE HENRY.....Lexington, Ky.
HILTON, WILLIAM THOMAS.....Louisville, Ky.
HOUZE, ALVIE.....Centre Square, Ind.
MILLS, GEORGE WASHINGTON.....Bradfordsville, Ky.
KEMPER, GEORGE WHITEFIELD.....Lexington, Ky.
POLSGROVE, HUMPHREY MARSHALL.....Frankfort, Ky.

REAGOR, WILLIAM FRANKLIN.....Singleton, Tenn.
RIGGS, BARTON ZADOC.....Salem, Oregon.
ROBERTSON, ROBERT HENRY.....Monterey, Ky.
WHITE, CHARLES HENRY.....Slater, Mo.
WILLIS, ETHRIDGE JACKSON.....Simpsonville, Ky.

General Design of the College.

The design of this institution is to prepare young men for usefulness in the Church by furnishing them with systematic instruction in the Word of God in both the English version and the original tongues, and with an accurate knowledge of the higher branches of English Literature and Philosophy. While its course of study is especially adapted to those who intend to become preachers of the Gospel, it is not a professional school, its classes being open to all religious young men who wish to extend their knowledge of the Scriptures. Two classes of students are provided for:

I. Those who have received the degree of Bachelor of Arts in an institution of the grade of the College of Liberal Arts of the University; and

II. Those who, having a good English education, wish to extend it and to obtain a thorough knowledge of the Word of God, and of the best way of imparting it to others.

Special Design of Each Department.

I. School of English.

There are many pious young men who have neither the time nor the means to obtain a classical education, but yet have a desire and the ability to be very useful in the ministry. It is the special design of this department to afford to such an opportunity to become well acquainted with the English language and its literature.

The work of this department is divided into four years: Freshman, Sophomore, Junior and Senior. In order to graduate, a

student is required to complete the studies of the first three years; though he may, with the advice and consent of the professor, substitute the Senior studies for the Junior. A student who reads, writes and spells well, and who has a good knowledge of English Grammar, can enter the Freshman class.

FRESHMAN.—In this class the student is thoroughly drilled in the principles of syntax and grammar, and in the leading facts of English history.

SOPHOMORE.—During this year special attention is given to rhetoric and composition. As fast as principles are learned they are practically applied in oral and written exercises. The aim will be to teach the student to know and appreciate good English, and to train him to express his thoughts with clearness, precision and force. Great stress is laid upon the writing of essays, which are required throughout the year. The history of English literature is also studied during this year, the aim being to make a survey of the whole field as a preparation for the more critical study of the following year.

JUNIOR.—This year is devoted to the critical study of literature. The first term is given to the study of prose masterpieces. These selections furnish a basis for a clear study of English prose style. The second term is devoted to poetry under the main divisions of epic, lyric and dramatic. Special attention is given to the drama of Shakespeare. Every effort is made to cultivate a taste for good literature, and all students are encouraged to do as large an amount of parallel reading as possible.

SENIOR.—This year's work is designed to be an introduction to a more thorough and comprehensive study of English philology. A close study is made of selections from old and middle English. Special attention is given to the complex elements that enter into the vocabulary of English, and may difficulties in the grammar and syntax of modern English are simplified. The attempt is made to emphasize the fact that the English language and English literature have been a gradual growth, and that to study them intelligently one must study them historically. It is thought that this course will prove especially helpful to those who expect to teach English.

II. School of Sacred History and Evidences of Christianity.

The design of this department is twofold: first, to lay a a solid foundation in the knowledge of the historical facts of the Bible for all subsequent advances in Biblical study; and second,

to make the student familiar with a large amount of material suitable for discourses and illustrations. Incidentally, the faith of the student is strengthened by making him acquainted with the actual contents of the Bible.

To attain the ends just stated, the course of study in Sacred History is more extended than in other colleges of like character. It includes all the historical books of both the Old Testament and the New, together with all the historical information to be gleaned from the other sacred books, and much subsidiary information found in secular history.

The method of instruction is by lectures, and these are followed by recitations in which the matter of the lectures and of the text is reproduced by the student. Every book is distributed into its natural divisions of parts, sections and paragraphs, all of which are studied both separately and connectedly, so that when a book is completed its whole structure and design are understood. As far as may be, all obscure passages are made clear, and apparent discrepances are reconciled. Special attention is given to geography and topography, and for the purpose of illustrating these topics, the department is furnished with a first-class stereopticon, and a set of slides representing in large and brilliant pictures the localities in which the events of the sacred narrative transpired.

The Freshman year is devoted to the study of the Pentateuch, Joshua, Judges and Ruth. The Law of Moses is set forth systematically. This is both important in itself, and indispensable to the proper understanding of many passages in the later books of the Bible. The statutes of the Law, both civil and religious, are properly classified according to the distinctions employed in modern statute books.

The studies of the Sophomore year cover a much neglected, but exceedingly important portion of Sacred History. No part of the Bible furnishes so many illustrations of the divine government and of the practical working of sin and redemption among men. The preacher familiar with it has an inexhaustible fund from which to draw while enforcing the claims of religion on mankind.

The members of the Junior class are required to memorize the text carefully, except in a few passages, so that they may always have it at command. They study the matter and structure of each gospel separately, so as to appreciate its distinctive peculiarities; and then they combine the information contained in all by means of a review, in which the events are considered in their

chronological order, so far as this can be ascertained. The character and claims of Jesus are kept constantly in view.

The Senior class studies the development and spread of the Church as given in Acts of Apostles, the controversial questions which have arisen in connection with its teaching, the chronology of the book, and the historical matter found in the Epistles.

The course in Evidences is in part coincident with that in Sacred History; for throughout the latter course much attention is given to the internal marks of the genuineness and authenticity of the several books, and to the support of their representations which is found in contemporary history.

In addition to this, the last term of the Senior year in this school is devoted to the study of the text, canon, credibility and inspiration of the New Testament books; and two lectures a week are given throughout the Senior year on the same features of the books of the Old Testament. In this course the leading objections to the Bible urged by infidels are duly considered, and the principal questions raised in the course of modern criticism pass under review.

III. School of Sacred Literature.

In this department the student of the English Scriptures obtains a knowledge of Christian doctrine and the principles of Biblical interpretation. In its Classical Course he receives instruction in the Hebrew language and in Greek exegesis.

In the Sophomore year thorough instruction is given in the whole scheme of redemption as taught in the Holy Scriptures, followed by lectures on Ecclesiastical History, including that of doctrines, schisms and sects, from the death of Christ till the present time.

The Junior year is devoted to hermeneutics. In the application of the principles of interpretation there are two distinct features; first, the exegetical analysis of the Scriptures into sections, paragraphs, elements of thought, sub-elements, etc.; and second, exegetical discussion at the end of paragraphs containing words or expressions which demand additional explanation. In these processes free use is made of the assistance afforded by the labors of such exegetes as Meyer, Tholuck, Alford, Lange, Bengel and others. At the same time the student is carefully guarded against all deference to authorities that would preclude an independent

examination of the text itself, and an unbiased application of the principles of hermeneutics, by which all alike must be governed.

The Senior year is spent in fitting the preacher for his life work. This includes the preparation and delivery of sermons, discussions of topics, pastoral work, choice of books, etc.; in a word, the whole subject of homiletics.

IV. School of Philosophy.

The purpose of this department is to make the preacher thoroughly acquainted with the workings of the human intellect; to furnish him with the weapons to be used in defending the faith and assailing the strongholds of error; and to show him how to lay open the secret springs of the heart and will so as to lead both to the obedience of the Gospel. There is a philosophy, falsely so called, that in many places is sapping the foundations of religion; and the preacher of to-day must be able to meet the assailants in their own way, as they secretly as well as openly work their approaches to the citadel of divine truth. He can do this only by understanding his Bible on the one hand and the human mind on the other. The information and mental discipline acquired in this department are in utility to the preacher second only to his knowledge of the Word of God.

Course of Instruction.

I. School of the English Language and Literature.

PROFESSOR FREEMAN,

ADJUNCT PROFESSOR CONLEY.

(College of Liberal Arts.)

Freshman Class.

FIRST TERM—Montgomery's History of England: Whitney's Essentials of English Grammar begun, with Exercises in Composition.

SECOND TERM—Whitney's Essentials completed, with Exercises in Composition.

Sophomore Class.

FIRST TERM—Clark's Rhetoric begun, with Exercises in Composition.

SECOND TERM—Clark's Rhetoric completed, with Exercises in Composition; Shaw's History of English Literature.

Junior Class.

FIRST TERM—Critical Reading of English Prose; Minto's Manual of English Prose Literature for reference.

SECOND TERM—Critical Reading of English Poetry, with special attention to Dramatic Poetry.

Senior Class.

FIRST TERM—Historical English Grammar based upon selections from Sweet's Anglo-Saxon Reader and First Middle English Primer.

SECOND TERM—Lounsbury's History of the English Language; Chaucer, Prologue and Knightes Tale (Skeat-Morris); Spenser, Faery Queen, Book I. (Kitchin).

II. School of Sacred History and Evidences of Christianity.

PROFESSOR McGARVEY.

Freshman Class.

FIRST TERM—Genesis, Job, Exodus.

SECOND TERM—The Pentateuch completed, with special attention to the Law of Moses; Joshua, Judges, Ruth.

Sophomore Class.

FIRST TERM—First and Second Samuel, and First Kings; Historical View of the Book of Psalms, Proverbs, Ecclesiastes and Solomon's Song.

SECOND TERM—The other Historical Books of the Old Testament, together with an Historical View of the Books of the Prophets.

Junior Class.

FIRST TERM—The Narratives of Matthew and Mark.

SECOND TERM—The Narratives of Luke and John; Chronology of the Gospels.

Senior Class.

FIRST TERM—Acts of Apostles; Historical View of the Epistles; later Apostolic History.

SECOND TERM—The Text, Canon, Credibility and Inspiration of the New Testament.

The Text, Canon, Credibility and Inspiration of the Old Testament twice a week during the session.

TEXT-BOOKS—The Revised English Bible; McGarvey's Work on Evidences.

BOOKS OF REFERENCE—The Works of Josephus; a Biblical Atlas; McGarvey's Lands of the Bible; Rawlinson's Ancient Monarchies.

III. School of Sacred Literature and Homiletics.

PROFESSOR GRUBBS.

Freshman Class.

FIRST TERM—Hebrew Grammar and First Lessons in reading Hebrew.

SECOND TERM—Hebrew Bible and Exegesis.

Sophomore Class.

FIRST TERM—Exposition and Defence of the Scheme of Redemption as taught in the Holy Scriptures.

SECOND TERM—Lectures on Church History.

Junior Class.

FIRST TERM—Hermeneutics.

SECOND TERM—Greek and English Exegesis.

Senior Class.

FIRST TERM—Homiletics.

SECOND TERM—Homiletics, with discussion of topics.

IV. School of Mental, Moral and Political Philosophy.

PROFESSOR GRAHAM.

Junior Class.

FIRST TERM—Coppee's Logic; Haven's Mental Philosophy begun.

SECOND TERM—Haven's Mental Philosophy completed.

Senior Class.

FIRST TERM—Wayland's Moral Science; Wayland's Political Economy begun.

SECOND TERM—Wayland's Political Economy completed; Alden's Civil Government.

Every student should have Bowen's Hamilton's Metaphysics; Bowen's Logic; Story on the Constitution; Fleming and Krauth's Vocabulary of the Philosophical Sciences.

The English Course comprises all the studies of the four schools indicated above, and those of the Freshman Natural Science in the College of Liberal Arts; except Senior or Junior English, Freshman Sacred Literature and Greek Exegesis.

The Classical Course comprises all the studies of the four schools indicated above, except the Senior or Junior English, and whatever other studies are necessary for the attainment of the degree of Bachelor of Arts in an institution of the grade of the College of Liberal Arts of the University.

Students of good religious standing who have completed either of these courses, with an average scholarship of not less than seventy-five in each class, receive a diploma certifying to their graduation in the English or in the Classical Course. No degrees are conferred.

Order of Recitations.

Hours.	School of Sacred History.	School of Sacred Literature.	School of Philosophy.	College of Liberal Arts.
9	Freshman. Senior.		Junior.	Freshman English, Section I. Junior English.
10	Junior.	Sophomore.		Sophomore English, Section I. Greek Exegesis on Wednesdays of the Second Term.
11	Sophomore.			Freshman English, Section II. Freshman Natural Science.
12	Senior. (Lectures on Old Testament Criticism twice a week.			Sophomore English, Section II. Greek Exegesis on Wednesdays of the First Term.
2		Freshman. Senior.		Senior English.
3		Junior.	Senior.	Freshman English, Section III.

All regular classes in this college recite five times a week.

Order of Studies.

I. English Course.

FIRST YEAR—Freshman English; Freshman Sacred History; Freshman Natural Science.

SECOND YEAR—Sophomore English; Sophomore Sacred History; Sophomore Sacred Literature.

THIRD YEAR—Junior English; Junior Sacred History; Junior Sacred Literature; Junior Philosophy.

FOURTH YEAR—Senior Sacred History; Senior Sacred Literature; Senior Philosophy.

II. Course for Bachelors of Arts.

FIRST YEAR—Freshman and Junior Sacred History; Freshman and Junior Sacred Literature.

SECOND YEAR—Sophomore and Senior Sacred History; Sophomore and Senior Sacred Literature.

Vocal Music and Elocution.

It has been the habit of the College from the beginning to furnish to its students instruction in vocal music and in elocution, and much has been accomplished in this way; but for want of funds no regular teachers have been appointed. These departments have been placed annually under the charge of competent teachers: the classes are at present voluntary, and a small fee is charged for the instruction given in each class.

Miscellanea.

Admission.

1. The applicant must be at least sixteen years of age.

2. He must present satisfactory evidence of good Christian character.

3. He must be prepared to enter the Freshman Classes in English, Mathematics and Natural Science in the College of Liberal Arts.

These requirements are strictly enforced.

Discipline.

It is expected that students in this college will govern themselves. Strict Christian deportment is required of all. Whoever fails of this, is promptly removed from the institution.

No student is allowed to have more than two appointments a month to preach.

Any student, the average of whose daily recitations in any study is not less than ninety, may be excused from the term examination and from any other general examination in that study.

Accommodations and Expenses.

Boarding can be obtained in private families at from $3.00 to $4.00 per week, including all expenses except washing. But students can board in a club at from $1.50 to $2.00 per week, not including washing, fuel and lights. For the accommodation of our students, we have the exclusive use of three college halls on the campus, whose forty rooms have been comfortably fitted up for their occupancy. Each occupant of a room is required to share with his room-mates the expense of furnishing it. But this is made light by the fact that the expense is incurred but once, and that the furniture can always be sold when no longer needed. No rooms can be engaged by new students before matriculation.

The annual expense of students who occupy rooms in the Halls, may be set down as follows:

College Fees	$15.00
Room Rent	10.00
Club Fees (payable weekly)	70.00
Washing, Fuel, Lights	20.00
Books, Stationery, etc.	20.00
Incidentals	5.00
Total	$140.00

The classes of the College of the Bible are taught in the same building with those of the College of Liberal Arts. Our students are admitted without charge to any of the classes of that college; and thus an opportunity is afforded them of prosecuting literary and scientific studies along with their study of the Word of God. They have free access to the libraries of both colleges. The literary societies of this college, the Philothean and the Phileusebian, afford their members ample opportunity for self-improvement.

It is earnestly desired that all who intend to enter the College be present at the opening of the session.

College of Law.*

Faculty.

HON. JOSEPH D. HUNT, Presiding Officer,
DAVID G. FALCONER, LL. B.,
JOHN T. SHELBY, A. M.,
JOHN R. ALLEN, LL. B.

Matriculates.

ALLEN, RICHARD BUCKNER	Lexington.
BOURNE, MORTON HUMPHREY	Owenton.
BROWN, GEORGE OWEN	Glass, Tenn.
DAVIS, JOHN FIELDING	Winchester.
DE LONG, JAMES LUCAS	Lexington.
DOUGLAS, FRANCIS BRECKINRIDGE	Lexington.
MOORE, HORTON	Paris.
PEARSON, OLOF	Lexington.
RIELLY, ANNIE ARMER	Lexington.
SHELY, ALDA MIRRIL	Lexington.

Course of Instruction.

I. School of Equity, Jurisprudence and the Law of Contracts.

PROFESSOR HUNT.

JUNIOR CLASS—Smith on Contracts.
SENIOR CLASS—Adams' Equity.

*This college, which closed in 1879 after an existence of fourteen years, in which time it had a hundred and fifty-eight graduates, was reopened in 1892 too late for announcement in the last catalogue of the University. There is a good prospect of a much larger attendance during the next session.

II. School of Common Law, and Real and Personal Property.

PROFESSOR FALCONER.

JUNIOR CLASS—Blackstone's Commentaries.

SENIOR CLASS—Kent's Commentaries; Williams on Real and Personal Property.

III. School of Evidence, Pleading and Practice.

PROFESSOR SHELBY.

JUNIOR CLASS—Stephens on Pleading.

SENIOR CLASS—Starkey on Evidence; Chitty on Pleading; Bliss on Code Pleading.

IV. School of Constitutional, Mercantile and Criminal Law.

PROFESSOR ALLEN.

JUNIOR CLASS—Smith's Mercantile Law; Cooley's Principles of Constitutional Law.

SENIOR CLASS—Harris on Criminal Law.

The design of the College of Law is to provide a complete and thorough course of instruction, except in merely local law and practice, for young men preparing for the bar in any part of the United States.

Instruction is given by lectures, with examinations on them, or by recitations, with familiar expositions by the professors.

Moot Courts, presided over by the professors, will be held regularly.

The course of study requires two years for its completion. Applicants will be admitted to the Senior class upon passing a satisfactory examination in the Junior course, or its equivalent.

The diploma of this college, granted only after a satisfactory written examination, confers the degree of Bachelor of Laws, and is a license to practice law in the courts of Kentucky.

Matriculates of this college can attend, without charge, the classes of the College of Liberal Arts.

Commercial College.

Faculty.

WILBUR R. SMITH, Presiding Officer,
EPHRAIM W. SMITH, Associate Principal.

The principals are assisted by twelve instructors.

Matriculates.

The number of matriculates from June 1, 1892, to June 1, 1893, was 764. The number of graduates during that time was 344.

Course of Instruction.

The course of instruction is unusually full. It includes Book-keeping in its application to professional and official business and to the various forms of merchandising, compound company, partnership, commission, joint stock, railroading, steamboating, banking, milling, real estate and insurance, furnacing and mining.

The thorough instruction given in banking is an important feature of this college. This part of the course includes the use of ten books, with the necessary accompaniment of business and legal forms.

Both class and individual instruction is given in Commercial Arithmetic in its various features of interest, discount, premium, profit and loss, percentage, averaging accounts, equation of payments, proportion of taxes, insurance and measurements.

Students are trained in mercantile correspondence and in the use of checks, drafts, exchanges, deeds, leases, mortgages, agreements and other forms of business paper.

Frequent lectures on Commercial Law, given by the Associate Principal, explain the law of partnership, contracts and the settling of estates.

The whole course of instruction is eminently practical in aim and methods. The drilling that the students receive in the principles of business is accompanied and followed by their practical application in organizing and conducting business, at first simple, but afterwards of the most intricate and complicated character. As a final test of proficiency the student is required to merge a set of individual single entry books into individual double entry, this into partnership, and this again into joint stock.

Special courses in shorthand, typewriting and telegraphy may be taken either with or without a general course. The instruction in these branches is not confined to the immediate subjects, but includes a liberal range of collateral matters. The instructors are competent teachers of practical experience in tneir respective departments.

The Commercial College has two general courses, the Merchants' Course and the Full Business Course. The former requires from five to seven weeks to complete it, the latter from eight to twelve weeks. A separate charge is made for instruction in phonography, typewriting, and telegraphy.

The session continues throughout the year. Students can enter at any time. There is no class system, but individual instruction, each pupil advancing as rapidly as he may be able.

The hours of work are from 9 A. M. to 12 M., $1\frac{1}{2}$ to 4 P. M., and 7 to $8\frac{1}{2}$ P. M.

Matriculates of this college can attend without charge, for the remainder of the session after the completion of their business course, the classes of the College of Liberal Arts or of the Academy.

Academy.

Instructors.

RICHARD H. ELLETT, A. M., PRINCIPAL
WALTER G. CONLEY, A. M.,
HENRY LLOYD, B. S.

Matriculates.

ALLEN, GEORGE MARSHALL.....Washington.
BAUGN, GEORGE WASHINGTON.....Lexington.
BEASLEY, CLIFFORD VIRGINIUS.....Lexington.
BEDFORD, HITE HENRY.....Lexington.
BERKLEY, JOHN EBENEZER.....Lexington.
BITTERMAN, EDWARD.....Lexington.
BOWMAN, JOHN.....Lexington.
BRADLEY, CHARLES WALTER.....Lexington.
BROWNING, GEORGE.....Lexington.
BRUCE, GEORGE HOWARD.....Lexington.
CARROLL, WILLIAM MICHAEL.....Lexington.
CRABTREE, DAVID MONTGOMERY.....Lexington.
HINTON, WILLIAM.....Lexington.
HUFFMAN, CHARLES BRIGGS.....Lexington.
HUGHES, EDWARD.....Lexington.
JONES, HENRY BRENNAN.....Lexington.
KELLEY, THOMAS DUKE.....Lexington.
KRAETZ, THEODOR.....Lexington.
LUSBY, LETCHER.....Lexington.
MEFFORD, NOAH CLIFTON.....Donerail.
MORGAN, RICHARD COLEMAN.....Lexington
NAVE, CLYDE.....Versailles.
OMER, HUSTON ALLEN.....Grove Centre.
READY, JOHN.....Lexington.
RODGERS, LEWIS THOMAS.....Flag Point.
ROGERS, JAMES WILLIAM.....Luxemburg, Miss.
SCEARCE, FRANKLIN PIERCE.....Lexington.
SHEDD, HARRY MERWIN.....Lexington.
SMITH, JOHN GAMBLE.....South Elkhorn.

STEVENS, GEORGE MCLELLAN.....Lexington.
TUDOR, VALENTINE.....East Hickman.
WILLIAMS, LEE VILEY.....Payne's Depot.
WOODARD, HARRY CLANTON.....Lexington.
YEAGER, ALBERT THOMPSON.....Millersburg.

Course of Instruction.

ENGLISH—Welsh's Lessons in English; Study of Words.
MATHEMATICS—Peck's Arithmetic; Peck's Algebra begun.
LATIN—Harkness's Grammar; Exercises at the blackboard in writing Latin, with quantities marked; Kelsey's Caesar begun.
GREEK—White's Beginner's Greek Book; Goodwin's Grammar.
HISTORY—Scudder's United States.
GEOGRAPHY—Harper's Modern Geography; Ancient Geography; Houston's Physical Geography.

The Academic, or Preparatory course of instruction is designed to fit students for the Freshman class in the College of Liberal Arts.

For entrance into the Academy, applicants must not be less than thirteen years of age; must know the rudiments of Geography, Grammar and Arithmetic; and must consent to be governed by the University code of discipline. Pupils, unless excused, must spend daily in the room of the Principal a required number of hours in study.

Elocution and Oratory.

This department is in charge of a competent instructor.

The course, extending over two years, is thorough and complete. For instruction in it a special fee is charged.

Enumeration.

Matriculates of the Session of 1892-93.

College of Liberal Arts	222
College of the Bible	187
College of Law	10
Commercial College	764
Academy	34
	1217
Names counted twice	6
	1211

Matriculates of other colleges with classes in the College of Liberal Arts and the Academy:

College of the Bible	148
College of Law	3
Commercial College	3
	154

Matriculates of the College of Liberal Arts with classes in the College of the Bible	19

General Miscellanea.

Sessions, Terms, Commencements.

The session of the College of Liberal Arts, the College of the Bible, the College of Law and the Academy begins on the second Monday of September. The session of the Commercial College continues through the year.

In the College of Liberal Arts, the College of the Bible and the Academy, the session is divided into two equal terms.

The Commencement of the College of Law is on the fourth Thursday of April; that of the College of Liberal Arts on the second Thursday of June, on which day the session of the Academy also closes; that of the College of the Bible on Tuesday next preceding the second Thursday of June.

Young Women.

The College of Liberal Arts, the College of Law and the Commercial College are open to both sexes. The College of Liberal Arts receives only such young women as students as are of suitable age and as are prepared for the Freshman Class in the School of Mathematics or of English. This will not preclude them from having some of their classes in the Academy.

As the University is not yet provided with a boarding house for young women, only those will be received as students who have or can find a home in the city or vicinity where they will be under a protecting and controlling family care, and those who are of sufficient age and experience to be safely left to themselves. Parents and others who desire to send young women to the University are requested to communicate with the President, who will give all desired information.

Matriculation.

A student, upon his arrival, should report promptly to the Presiding Officer of the college he desires to enter, with his testimonials of character and standing. He should, as early as practicable, secure suitable board and lodging. After successful examination and payment of fees, he will be entitled to matriculate. Fail ure to observe these regulations may bar his admission.

Fees.

MATRICULATION—College of Liberal Arts, $15.00; College of Law, $10.00; Academy, $15.00; Commercial College, free.

TUITION—College of Liberal Arts, tuition coupon or $2.00; College of Law, $50.00; Commercial College, Merchant's Course, $35.00; Full Diploma Course, $55.00; Shorthand, $35.00; Typewriting, $20.00; Shorthand and Type writing, $50.00: Academy, tuition coupon or $2.00.

LABORATORY—For Chemicals used in the Junior class, $5.00; in the Senior class, $10.00. In the Junior class a deposit of $3.00 and in the Senior of $5.00 is required to cover damage to apparatus.

GRADUATION—Bachelor's degree, $10.00; Master's degree, $10.00; certificate from any one school, $3.00. From the fee charged for a Bachelor's degree deduction is allowed of payments made for certificates to an amount not exceeding ten dollars.

For fees in the College of the Bible see page 44.

All fees are required in advance.

No tuition fee is required in the College of Liberal Arts of any student in indigent circumstances that has had one year's experience in teaching, and that intends to make that his profession.

Government and Discipline.

The government of the University, administered by the Presidents and Faculties, aims to maintain such a discipline among the students as will conduce to the good order and prosperity of the institution. The rule of discipline is parental, conducted not with severity, but with strictness. There is no forbearance with evil; every element of disorder, as soon as discovered, is at once removed. The Presidents and Professors bear themselves toward the students as friends.

This kind of government has borne its good fruits. The University enjoys an enviable reputation for the excellent character of its students and for the general good order pervading it.

Religious and Moral Culture.

Every recitation day of the Colleges of Liberal Arts and the Bible and of the Academy is opened with worship in the chapels. The Professors are present, and attendance on the part of the students is obligatory.

The Bible in English and in the original tongues is a text-book in the University.

Students are expected to attend religious services in the churches of the city on Sunday. A large number of them are regularly present at week-day prayer-meetings, and many are members of Bible classes that look especially to their religious and spiritual instruction and training.

A College Young Men's Christian Association and a Students' Missionary Society contribute also to awaken and cultivate a religious interest among the students.

A large majority of the students are professing Christians.

Public Lectures.

The Kentucky University Lecture Association, which has been in successful operation for several years, contributes much to the intellectual culture and enjoyment of the students. A course of lectures is arranged every session, which brings to the University some of the best lecturing talent of the land. Only such teachers of the platform are invited by the Association as honor and advocate the Christian religion. These lectures have thus far met with remarkable success, and now constitute one of the permanent attractions of the University.

Location.

The College of Liberal Arts, the College of the Bible and the Academy occupy the Transylvania grounds and buildings.

Lexington, situated in the Blue Grass Region of Kentucky, is noted for its healthfulness and its superior social and religious influences. It affords to students boarding in good private families, with excellent opportunities for culture and refinement.

Libraries.

The law, the medical and the miscellaneous libraries of the University, comprising about twelve thousand volumes, are open to all its students. The large and valuable library of the city of Lexington is accessible upon the payment of a small fee; its reading-room is free.

Apparatus and Museum.

The University has ancient and modern wall maps, a large and valuable collection of chemical, philosophical and astronomical apparatus, and a museum containing an extensive collection of anatomical, geological and mineral specimens and objects of Nat-

ural History, all well adapted to the purpose of illustration and instruction in its schools of literature and science.

Societies.

The literary societies of the College of Liberal Arts are three, the Cecropian, the Periclean and the Ossolian, the last the young women's society; of the College of the Bible two, the Philothean and the Phileusebian. They have their halls and libraries, and their weekly exercises add to the facilities afforded for practice in composition, elocution and discussion.

Gymnasium.

The Association of Alumni of the University has undertaken the work of raising means for the erection of a gymnasium. A second appropriation, made by the Board of Curators at its last meeting, increases the amount secured for this purpose to near ten thousand dollars. It may, therefore, be confidently expected that this means of promoting the physical health and development of our students will soon be added to the facilities already afforded by the ample grounds of the University.

Boarding.

A student can select his house for boarding and lodging, subject in all cases to the approval of the Faculty. He can not, however, board or lodge in any house in which intoxicating liquors are sold, in which card playing or billiard playing is practiced, or in which the rules of good order and decorum are, in any respect, disregarded. In private families, the weekly cost of boarding, fuel, light, and the use of furnished rooms, varies from $3.00 to $5 00.

Bequests.

Institutions of learning have very often received large donations from bequests. There are, therefore, subjoined here general and special forms of bequests, both as incentives and directions to such friends of the University as may desire to remember i liberally in their wills.

Forms of Bequest.

General.

I give and bequeath to Kentucky University the sum of .....dollars, to be applied at the discretion of the Curators for the general purposes of the University.

Special.

I give and bequeath to Kentucky University the sum of ..... dollars, to be invested by the Curators as an endowment for the support of (a professorship or some other object designated in the bequest).

President's Annual Report.

(Abstract.)

Gentlemen of the Board of Curators:

It gives me pleasure to lay before you my report for the session just closing.

The number of matriculates for the present session in the College of Liberal Arts is 222; in the Academy 34; in all 256. There has been for years, with slight variation, a steady and marked increase in the attendance of students in the University, shared alike by all its colleges that were in operation.

The College of the Bible the present collegiate year matriculated 187 students, with 24 in the Senior Class. The Commercial College since last June records 764 matriculates, and has given full diplomas to 344 students.

The Law College was opened again last September with a class of 10. Its four professors have shown a very commendable interest in the success of the college. For years constant inquiries about this college have been coming from abroad, as well as from near home. It would be very gratifying to see this branch of the University enter upon a course of permanent success.

The entire number of students in all branches of the University for the present collegiate year is 1,211.

During last session the Faculty of the College of Liberal Arts, following the example of many of the best universities and colleges of our land, drew up a scheme of substitutes in the A. B. and B. S. courses. This scheme, with the reasons for it, was laid before you at your last annual meeting, and you promptly adopted it. I regard this as a wise step forward. Of the sixteen candidates for the degree of A. B. this session, twelve have taken advantage of this provision.

The Executive Committee, on the recommendation of the Faculty, has established a regular course for the degree of Civil Engineering, with a Bachelor's diploma.

In the universities of the Old World, and in many of the best institutions of our own country, there is a special literary course leading to the degree of Bachelor of Literature.

There are many persons whose inclinations and aims lead them

to pursue, in a special sense, literary studies—less of mathematics and ancient languages than is embraced in the A. B. course, substituting for these the modern languages. This very proper demand should be satisfied.

The Faculty have given much time and careful attention to this question. When the course was finally decided on, and its scheme of studies arranged, it was submitted to the Executive Committee, by which, after due consideration, it was approved.

The course is as full and as strong, and will require as much time to complete it, as either the A. B. or the B. S. course. There is also arranged, in connection with it, an additional amount of studies leading to the higher degree of Master of Literature.

At your session in June, 1889, with hearty unanimity, you adopted the recommendation of the Faculty to receive women into the College of Liberal Arts on the same conditions and with the same privileges as men. This praiseworthy step we have had no cause to regret. The Commercial College had already opened its doors to women, and the Law College has promptly shown the same enlightened and liberal spirit. Women can now enter all the colleges of the University. I am glad to say to you that the public everywhere applauded this action of Kentucky University.

There are thirty-eight young women in our list of matriculates this year; one of them is among the candidates for the degree of A. B.; others will reach the goal of graduation ere long. The Law College had also one young woman among its students.

Of the 187 students in the College of the Bible this session, 148 were in the classes of the College of Liberal Arts and of the Academy. It is notable, and a good sign, that there is year by year an increasing tendency on the part of the students of this college to enter the advanced classes of the College of Liberal Arts. In our present Senior Class of 21, there are nine graduates of the College of the Bible. These are all ministerial students, who now go forth as graduates of both these colleges.

One of our candidates for the B. S. degree graduated yesterday, in the College of the Bible.

The Executive Committee, as you will see from their report, has decided that the entrance fees in the College of Liberal Arts shall be increased from twelve to seventeen dollars for the entire session. This is a very moderate advance. It has for years been a surprise to the community that these fees in Kentucky University are so much lower than in any other institution in

our land of equal and even inferior rank. The necessity of retaining them as they have been in the past is no longer upon us.

The income of the University is far too small to meet its wants. Every proper effort should be made to increase our pecuniary resources. We need a larger body of teachers to meet the constantly increasing call for more extended collegiate and academic instruction. There is also a pressing want in other respects in the institution—in apparatus, in all those conveniences in the class-rooms which the highest order of teaching demands. The scientific department notably needs larger facilities. More teachers, more room, more and better apparatus are what we need.

The amount secured thus far for the building of a gymnasium is $6,870.00; the amount required is $10,000.00. It is hoped that this sum will soon be obtained, and that within the coming year this much needed addition to the University will be erected and fitted out, ready for use.

Report of the Several Schools.

In the School of Greek there were in all 110 students, divided into six classes.

The Senior class is confined to Biblical Greek, studying in the first term the Septuagint, in the second term the New Testament. Lectures are given in this class on the peculiarities of the Septuagint and New Testament Greek, and the text is exegetically studied. This will become an important class with the more nobly ambitious students for the ministry.

The New Testament is also studied regularly once a week, one term in the Freshman and one in the Sophomore year, making together about forty recitations.

Grecian history is studied in the Freshman and Sophomore years.

In the School of Latin there were altogether 163 students, distributed into seven classes. Roman history is studied in the Sophomore year.

The School of Mathematics numbered in all 260 students, divided into eight classes.

These numbers include the members of the Academic classes in Greek, Latin and Mathematics.

The School of English had in it a very large number of students, 296 in all, reciting in six classes. This is exclusive of the two English grammar classes in the Academic course.

In the School of Natural Science there are three classes, with an attendance this session of 174 students. During the first term of the Junior year, the class spends one hour in recitation and one hour in laboratory work.

The School of Sacred History extends through but one year, and has therefore but one class. The number of students in this was 29. Matriculates of the College of Liberal Arts may, when it is more convenient, take this course in the College of the Bible; several of them make use of this privilege every session.

The School of Philosophy has in it two classes—the Junior and the Senior. There were in these classes 33 students from the College of Liberal Arts, and a larger number from the College of the Bible.

There are four classes in the School of Modern Languages—Junior and Senior German, and Junior and Senior French. In the former were 36 students; in the latter 32. These classes may now be used as substitutes for certain classes in the course for the degree of A. B.

The School of Civil Engineering had in it two students, both of whom were Seniors.

Academy.

Professor Ellett, Principal, had three Academic classes: Latin Grammar, 71 students reciting in two sections; and the first Greek Grammar class, 44 students. He taught also one division of the Freshman class in Mathematics, 34 students. With his class, as Professor of Sacred History, numbering 29, he had in his five classes 178 students.

Professor Conley, First Assistant, had the Arithmetic and Algebra classes, 91 students reciting in two sections; and the second Greek Grammar class, 22 students. As Adjunct Professor of English he taught two sections of the Freshman class in that school, together 113 students. The entire number in his five classes was 226. A large proportion of these students was from the College of the Bible.

Mr. Calhoun, Second Assistant in the Academy, taught six classes: two classes in English Grammar and United States History, 20 students each; Arithmetic, 31; third Latin Grammar class, 14; Modern Geography and Study of Words, 20; Physical Geography, 15—120 students in all.

The Academic classes all recite five times a week.

Religious Societies.

There are three voluntary religious associations in the University: the Students' Missionary Society, the Young Men's Christian Association and the Young Women's Christian Association. These societies indicate the presence of a strong religious influence in the University, and are accomplishing much good among the students, the great majority of whom are professing Christians, many of them exemplary in their profession.

Respectfully submitted,

CHAS. LOUIS LOOS, President.

JUNE 7, 1893.

Treasurer's Annual Report.

Report of the Treasurer of Kentucky University for the fiscal year ending May 31, 1893:

RECEIPTS.

Cash on hand June 1, 1892	$ 5,456 85
Fees of all kinds	3,350 00
Incidentals	93 35
From College of the Bible, for insurance	118 00
Dividend on stocks	1,472 00
Interest on bonds	186 09
Interest on loans	12,250 52
Total	$22,926 81

DISBURSEMENTS.

Salaries of instructors	$14,450 00
Interest on Prize Fund	19 71
Rebate on interest	5 84
General expenses	2,356 78
Cash on hand to new account	6,094 48
Total	$22,926 81

Amount of Endowment Fund		$211,383 66
Increase in same during the fiscal year		795 00
Amount of Prize Fund		296 18
Increase in same during fiscal year		19 71
Amount of Gymnasium Fund		3,156 40
Amount of Caldwell Fund		1,000 00
Amount of coupons issued to May 31, 1893		289,325 00
Amount redeemed to May 31, 1892	$140,125 75	
Amount redeemed session 1892-93	7,620 00	
		$147,745 75
Amount outstanding May 31, 1893		$141,579 25

HENRY H. WHITE, Treasurer.

JUNE 1, 1893.

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STATE COLLEGE

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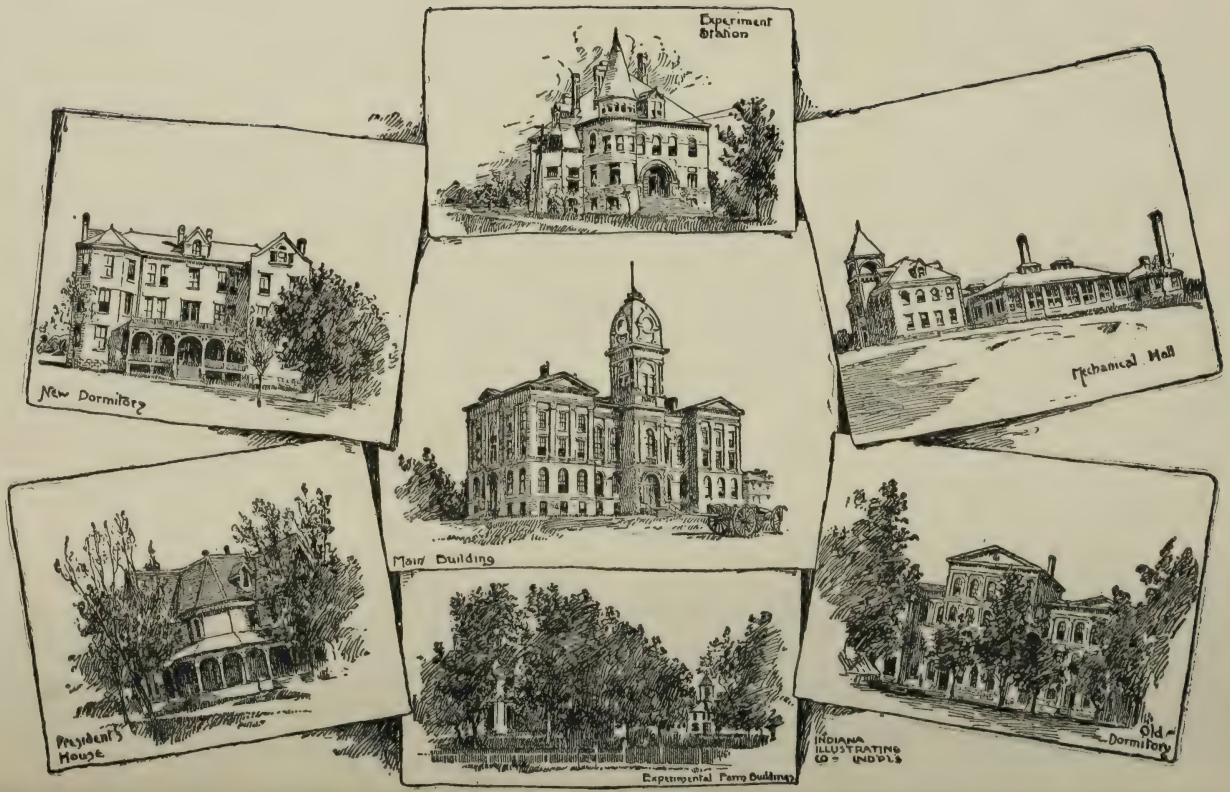
Experiment Station
New Dormitory
Mechanical Hall
Main Building
President's House
Experimental Farm Buildings
Old Dormitory
INDIANA ILLUSTRATING CO. INDPLS

CATALOGUE

OF THE

STATE COLLEGE

OF KENTUCKY

FOR

1893=1894.

LEXINGTON, KY.:
PUBLISHED BY THE COLLEGE.
1894.

PRESS OF THE
TRANSYLVANIA PRINTING COMPANY,
LEXINGTON, KY.

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R. A SPURR.

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Faculty of Instruction.

JAMES K. PATTERSON, PH. D., F. S. A., President,
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JOHN SHACKLEFORD, A. M., Vice-President.
Professor of English Language and Literature.

(Arranged in alphabetical order.)

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V. E. MUNCY, B. S.,
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Professor of Latin and Greek Languages and Literature.

J. W. NEWMAN, B. S.,
Assistant in the Normal Department.

WALTER K. PATTERSON,
Principal of the Academy.

M. L. PENCE, M. S.,
Associate Professor of Civil Engineering.

ROBERT PETER, M. D.,
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J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

RURIC N. ROARK, A. B.,
Principal of the Normal Department and Professor of Pedagogy.

JAMES H. WELLS, B. M. E.,
Assistant Professor of Mechanical Engineering.

JAMES G. WHITE, A. M.,
Professor of Mathematics and Astronomy.

Other Officers.

MISS MARY HODGES,
Stenographer.

J. W. PRYOR, M. D.,
Surgeon of the Battalion.

RURIC N. ROARK, A. B.,
Secretary of the Faculty.

JAMES G. WHITE, A. M.,
Business Agent.

Experiment Station of the State College.

Board of Control.

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R. A. SPURR.

DAVID H. JAMES.

J. K. PATTERSON, President of the College.

M. A. SCOVELL, Director, Secretary.

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M. A. SCOVELL, Director.

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H. GARMAN, Entomologist and Botanist.

C. W. MATHEWS, Horticulturist.

J. S. TERRILL, Assistant to Entomologist and Botanist.

A. T. JORDAN, Assistant to Horticulturist.

T. S. HAWKINS, Foreman of Farm.

MISS ALICE M. SHELBY, Stenographer.

EXPERIMENT STATION BUILDING.

The College.

History.

AGRICULTURAL and Mechanical Colleges in the United States owe their origin to an act of Congress, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic, arts," approved July 2, 1862. The amount of land donated was 30,000 acres for each Representative in the National Congress. Under this allotment Kentucky received 330,000 acres. Several years elapsed before the Commonwealth established an Agricultural and Mechanical College under the act. When established it was not placed upon an independent basis, but was made one of the Colleges of Kentucky University, to which Institution the annual interest of the proceeds of the Congressional land grant was to be given for the purpose of carrying on its operations. The land-scrip had meanwhile been sold for fifty cents per acre, and the amount received—$165,000—invested in six per cent. Kentucky State bonds, of which the State became custodian in trust for the College.

The connection with Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed, and a Commission was appointed to recommend to the Legislature of 1879-80 a plan of organization for an institution, including an Agricultural and Mechanical College, such as the necessities of the Commonwealth required. The city of Lexington offered to the Commission (which was also authorized to recommend to the General Assembly the place, which, all things considered, offered the best and greatest inducements for the future and permanent location of the College) the City Park, containing fifty-two acres of land, within the limits of the city, and thirty thousand dollars in city bonds for the erection of buildings. This offer the county of Fayette supplemented by twenty thousand dollars in county bonds, to be used either for the erection of buildings or for the purchase of land. The offers of the city of Lexington and of the county of Fayette were accepted by the General Assembly.

By the act of incorporation, and the amendments thereto, constituting the charter of the Agricultural and Mechanical College of Kentucky, liberal provision is made for educating, free of tuition, the energetic young men of the Commonwealth whose means are limited. The Normal Department, for which provision is also made, is intended to aid in building up the Common School system by furnishing prop-

erly qualified teachers. This College, with the associate departments which will, from time to time, be opened as the means placed at the disposal of the Trustees allow, will, it is hoped, in the no distant future do a great work in advancing the educational interests of Kentucky. Being entirely unsectarian in its character, it will appeal with confidence to the people of all creeds and of no creed, and will endeavor, in strict conformity with the requirements of its organic law, to afford equal advantages to all exclusive advantages to none. The liberality of the Commonwealth in supplementing the inadequate annual income arising from the proceeds of the land-scrip invested in State bonds, will, it is believed, enable the Trustees to begin and carry on, upon a scale commensurate with the wants of our people, the operations of the institution whose management and oversight have been committed to them by the General Assembly of Kentucky.

Location.

The Agricultural and Mechanical College of Kentucky is established in the old City Park grounds of the City of Lexington, given to the Commonwealth for this purpose. The site is elevated, and commands a good view of the city and surrounding country.

Lexington is now the most important railroad center in Kentucky, being in immediate communication with Louisville, Cincinnati, Maysville, Chattanooga, and with more than seventy counties in the Commonwealth. The long established reputation of the city for refinement and culture renders it attractive as a seat of learning, and the large body of fertile country adjacent, known as the "Blue Grass Region," with its splendid stock farms, affords unsurpassed advantages to the student of agriculture who desires to make himself familiar with the best breeds of horses, cattle, sheep and swine in America.

Grounds.

The campus of the College consists of 52 acres of land, located within the corporate limits of Lexington. The South Limestone street electric car line extends along the greater part of its western border, giving opportunity to reach in a few minutes any part of the city. The campus is laid out in walks, drives and lawns, and is planted with a choice variety of native and exotic trees and shrubs to which additions are constantly being made. A portion of the land has recently been reserved for a botanical garden in which will be grown the more desirable native plants, with a view to testing their adaptability to cultivation, and to give increased facilities to students

MAIN BUILDING. STATION BUILDING. NEW DORMITORY. MECHANICAL HALL.

CAMPUS OF STATE COLLEGE OF KENTUCKY.

taking agricultural and biological courses. Two and a half acres forming the north-east portion of the campus, enclosed and provided with a grand stand, is devoted to the field sports of students.

About three-quarters of a mile south of the campus, on the Nicholasville pike, an extension of South Limestone street, is the Experiment Station Farm, consisting of forty-eight and a half acres. Here the field experiments of the Station are conducted, and students have opportunities to witness tests of varieties of field crops, dairy tests, fertilizer tests, fruit spraying tests, in short all of the scientific experimentation of a thoroughly equipped and organized Station. The front of the farm is pasture and orchard. The back portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

Buildings.

The main college building is a structure of stone and brick, 140 feet long and 68 feet in width. It contains the office of the President and of the Business Agent, and on the third floor, counting the basement floor as one, is the Chapel, in which each day the students and Faculty meet, and in which are held public gatherings and such other meetings as bring together the entire student body. The remaining space in this building is occupied by recitation rooms and by the society rooms of the students.

The Station building is a handsome structure, well planned for the object for which it is made. It is seventy feet in length by fifty-four feet in width, with a tower projection in front, and an octagonal projection eighteen by eighteen on the north side. The building is two stories high, and has a basement eleven feet from floor to ceiling. The main entrance is on the first floor, on the west side of the building, through an archway fifteen feet wide. The basement is occupied in part by the Station and in part by the College. The next floor above is devoted to office and laboratory work of the Station, while the upper floor accommodates the College work in chemistry.

The building devoted to Mechanical Engineering covers altogether an area of about 10,897 square feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in this branch of engineering. It contains rooms as follows: Recitation room, 34′×25′; recitation room, 25′×23′; library and exhibition room, 25′×23′; office 10′×12′; drawing room, 34′×35′; engine room, 20′×30′; tool room, 30′×6′; wash room, 30′×10′; boiler house, 27′×27′; wood shop, 80′×34′; machine shop, 42′×35′; blacksmith shop, 35′×35′; foundry, 35′×37′.

A new brick two-story building has been erected and furnished with modern conveniences for the work in Veterinary Medicine.

Two large brick dormitories on the campus afford boarding con-

veniences for students who wish to lessen expense in this direction. Other buildings on the campus are a brick dwelling for the President, and a frame cottage at present occupied by one the College employes.

At the Experiment Farm is a brick dwelling occupied by the Director of the Station, and the usual farm buildings for the care of tools, the protection of stock, and the like.

Traveling Expenses of Students.

By the terms of the recent legislation upon the Agricultural and Mechanical College of Kentucky, a county appointee is entitled to have his traveling expenses from home to the College and return paid by the College, on the following conditions:

1st. He must be appointed according to law, a copy of which is in the hands of each County Superintendent of Schools.

2d. He must travel from home to the College by the shortest, least expensive and most expeditious route, and take receipts for all necessary expenses of travel, depositing the same upon arrival with the President of the College.

3d. He must present himself for matriculation within one week after the beginning of the fall term of the collegiate year.

4th. He must bring a certificate of good moral character, signed by two or more well known and responsible citizens of his county.

5th. He must pass creditably the entrance examination required for admission.

6th. He must remain a student of the College for ten consecutive months, or one collegiate year

7th. He must maintain during the collegiate year such class standing as will enable him to pass the final examinations at the end of the year.

8th. He must maintain a good character and maintain such class standing as the regulations require.

If at the end of the collegiate year the foregoing conditions have been complied with, the President of the College shall certify the fact to the Treasurer of the College, who, upon said certificates as vouchers, shall pay to the appointee the amount shown by the receipts aforesaid, and in addition thereto the sum for discharging the necessary expenses to be incurred in returning home.

College Expenses.

The necessary expenses of a student while at College need not exceed the following estimates. As a rule the less pocket money allowed by parents or guardians, the better it is for the pupil. When supplies of pocket money are kept short, the opportunity for contracting vicious habits is correspondingly diminished. Students should not be allowed by their parents to create any debts. All moneys intended for the use of the students should be deposited with the Commandant

For county appointees occupying a room in the dormitory and boarding in the common mess, the necessary expenses are as follows:

Tuition free	$000.00
Matriculation free	000.00
Room rent free	000.00
Use of furniture in room	2.50
Washing, about	10.00
Uniform	19.00
Board, 38 weeks, at $2.25 per week	85.00
Books, about	8.00
Total	$125.00

Each room must be provided by each occupant thereof, *at his own expense*, with a good mattress, three comforts or blankets, one pillow, three pillow-slips, four sheets, looking-glass, blacking-brush, hair-brush, clothes-broom or brush; some of these articles may be brought from home by the student.

For students who are not supplied with appointments from the Legislative Representative Districts of the Commonwealth, and who board in private families, the necessary expenses will be as follows:

Tuition fee	$15.00
Matriculation fee	5.00
Board and lodging, 38 weeks, at $3.50 to $4 per week.	133 00 to $152.00
Washing	10.00
Books and stationery	10.00
Total	$173.00 to $182.00

Those who occupy rooms in the dormitory pay $6.50 each (yearly) for the use of a room and its furniture. A standing deposit of $5 is required from each student, which deposit is refunded when his connection with the College is terminated, less the amount which may be assessed against him for the damages done to the buildings, furniture or premises. All damages, injuries, defacements, etc., which rooms and furniture in the dormitory sustain during occupancy will

be charged to the occupants thereof. All injuries, damages, defacements, etc., which the halls and dining-room sustain will, unless specifically traced, be charged to the occupants of the respective sections collectively.

Boarding.

For the accomodation of students sent as beneficiaries of Legislative Representative Districts of the State, rooms for one hundred and forty students are provided in the dormitories. To these good substantial board is furnished at $2.25 per week, payable weekly in advance; but no student under seventeen years of age will be permitted to room in the dormitories, unless all of his classes shall be in the regular collegiate courses. Good boarding, with fuel, lights and furnished room, can be obtained in private families at rates varying from $3.50 to $4 per week.

The students who board in the dormitories are, for business purposes, organized at the beginning of the collegiate year under a Chairman and Secretary of their own choice, whose successors are elected on the first Tuesday of each term, and who serve for one term. At the business meeting held on Tuesday night of each week, the weekly dues, $2.25, are paid. The boarding department is managed by a Board consisting of the President of the College, the Commandant, a Treasurer, who is a member of the Faculty, and into whose hands all the weekly dues are placed when collected, a Steward, a Chairman and a Secretary selected by the students. It will thus be seen that the boarding department has no official connection with the College authorities. The College, as such, does not board the students, and is in no sense responsible for any debts created by the boarding department. Two members of the Faculty, in their individual capacity, assist in the management of its funds.

No dormitory facilities are provided for women.

Beneficiaries.

Each Legislative Representative District is allowed to send, on competitive examination, *one properly prepared student* each year, to this College, free of tuition charge.

Beneficiaries are appointed on competitive examination. A Board of Examiners is appointed for this purpose by the County Superintendent of common schools. The results of examination are reported to the Superintendent, who, from the data thus furnished, selects the appointee. Examinations are made upon subjects transmitted to the County Superintendent by the Faculty of the College. One appointment is made each year.

Appointments are made by the County Superintendent between the first day of June and the first day of August of each year. Appointments when made should be immediately certified to the President of the College.

Appointments for the College proper, viz: the Agricultural, Mechanical Engineering, Civil Engineering, Scientific, Classical and Veterinary courses are all valid for the term of years necessary to complete the course of study in which the appointee matriculates. This includes the course in the Academy.

It follows from the above that a county which makes its appointments regularly according to law will have for the session of 1893-4 one appointee in the College, for the session of 1894-5 two appointees, for the session of 1895-6 three appointees, for the session of 1896-7 four appointees. When the first appointee completes his course, or ceases to be a student, another appointee takes his place. When the quota of a county is full it will have at least four appointees in regular attendance.

Each appointee is required to pass an entrance examination at the College on the subjects comprising all that is embraced in Arithmetic, English Grammar, Geography and United States' History, in the Common School Course.

All persons are eligible between the ages of fourteen and twenty-four who have completed the Common School Course—preference being given to young men or women whose means are limited, to aid whom the provision is specially intended.

Any person not an appointee may enter the College on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from payment of fees.

Appointees to the Normal Course.

The law makes provision for the appointment of four teachers, or persons preparing to teach, each year Appointments may be made and certified to the President of the College between the first day of July and the thirty-first of December of each year.

Appointments to the Normal School are tenable for one year.

Applicants for appointment are examined by a Board of Examiners appointed by the County Superintendent on subjects transmitted by the Faculty, viz: upon Arithmetic, English Grammar, United States' History and Geography. They should not be less than seventeen years of age. They are also required to pass an entrance examination at the College. They must likewise bring certificates of good moral character.

Matriculates in the Normal Department will be required to sign an obligation to teach in the common schools of Kentucky for as many months as they receive free tuition.

Student Labor.

The work necessary for carrying on the agricultural and horticultural operations of the College is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is twofold: to put in practice the instruction received in the class-room, and to assist students who are in need of money. The experience of this College is that of Agricultural Colleges generally—that compensated labor is not remunerative to the College

The College holds itself under no obligation to furnish compensated labor to students.

Students are paid monthly for the services rendered, and apply the money as they see proper.

No student, however, should come to this College expecting to maintain himself exclusively by compensated labor. At least seventy-five dollars per annum, exclusive of his earnings while here, should be at the command of every student who wishes to avail himself of the advantages of the compensated labor system.

Certificates of Character.

All applicants for admission into any class in the College or Academy must bring satisfactory testimonials of good moral character.

Departments.

(Arranged in alphabetical order).

The instruction work of the College is prosecuted in departments, each in charge of a responsible head, who is a member of the Faculty proper. The seventeen departments at present organized are as follows:

1. Agriculture, Horticulture and Botany.—Prof. Mathews.
2. Anatomy and Physiology.—Dr. Pryor.
3. Chemistry.—Prof. Kastle.
4. Civil Engineering and Physics.—Prof. Nelson.
5. English Language and Literature.—Prof. Shackleford.
6. Geology and Paleontology.—Prof. Miller.
7. German and French.—Prof. Helveti.
8. History and Political Economy.—Pres. Patterson.
9. Latin and Greek.—Prof. Neville.
10. Mathematics and Astronomy.—Prof. White.
11. Mechanical Engineering.—Prof. Anderson.
12. Metaphysics and Moral Philosophy.—Pres. Patterson.
13. Military Science.—Col. Clay.

14. Pedagogy.—Prof. Roark.
15. Preparatory (The Academy).—Prof. W. K. Patterson.
16. Veterinary Science.—Dr. Bennett.
17. Zoology and Entomology.—Prof. Garman.

Agriculture, Horticulture and Botany.

This Department occupies rooms on the lower floor of the Experiment Station Building. The main room is suitably furnished with laboratory tables, water and gas fixtures and other apparatus for class instruction.

Botany.

In this study the amount of instruction given varies from one to four or more terms in accordance with the requirements of the general course entered by the student. The laboratory method is the form of instruction principally used, and from the very beginning of his work the student is directed to a study of plants themselves, using the text book only in a subordinate manner, to correct his mistakes and to enlarge his field of view. In the course of the year class excursions are arranged to the Kentucky river and other localities of botanical interest for purposes of collecting and studying plants in their native habitat.

Among the facilities for study the Department possesses a greenhouse (20 ft x 50 ft) giving an opportunity for the continuous study of living plants throughout the winter months and for experimental work in plant physiology.

Each student is also supplied, for histological study, with dissecting and compound microscopes, microtomes and other appliances from the best makers.

The herbarium contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. It was primarily due to the efforts of Dr. Robert Peter, who made a quite extensive collection of Kentucky plants about sixty years ago, and also exchanged specimens with the prominent botanists of that day, thus forming the nucleus of the present collection, which therefore possesses considerable historical value. Constant additions are now being made to the herbarium by collecting excursions over the State, and by exchanges with other institutions.

A carefully selected library containing the most important botanical works of reference, is constantly available to the class.

The nucleus of a botanical garden has been commenced upon the College campus, to which additions will be made as rapidly as circumstances will permit.

The text books required in botany during the first year of instruction are Gray's Lessons and Manual of Botany and Bastin's College Botany, while constant reference is made, especially in the latter part of the course, to such standard works as Sach's Physiology of Plants, De Bary's Comparative Anatomy of Phanerogams and Ferns, Strasburger's Practical Botany, Gray's Structural Botany, Goodale's Physiological Botany, Darwin's Works, Beale's Grasses, Bennett and Murray's Cryptogamic Botany, Lesquereux & James' Mosses, Underwood's Ferns, Wolle's Algæ and others.

Horticulture and Agriculture.

In these subjects, much of the equipment mentioned under Botany is again utilized. As in Botany, the pupils are at once directed to the study and practical manipulation of plants rather than making any text-book their main dependence.

The greenhouse is used for instruction in seed testing, seed sowing, propagation by cuttings, grafting, etc., during the winter months, while from spring to fall the various operations of open air gardening are studied, especially the less commonly understood practices of transplanting, grafting, budding, pruning, crossing, etc.

The extensive list of varieties of vegetables and fruits growing upon the Experiment Farm gives an opportunity for a comparative study of varieties, rarely if ever found upon the ordinary farm.

The student is taught to perform experiments for himself in the best manner and to test the theories of the books by actual practice.

The college campus now contains a large number of ornamental trees and shrubs, and these with numerous varieties of annual and perennial flowering plants give the pupil a good opportunity to study ornamental horticulture.

In the distinctively agricultural studies, the experiments of the farm department of the Experiment Station furnish an excellent opportunity for the study of the effects of various fertilizers, varieties of wheat, corn and other field crops, and the many problems of dairying. The numerous fine herds of cattle and horses in the surrounding country are also freely utilized for purposes of instruction.

The following books are used as works of reference:

In Horticulture, Henderson's Gardening for Profit, Grewer's How to Make the Garden Pay, Thomas Barry's and Downing's works upon Fruit Culture, Bailey's Nursery Book and Grape Training, together with many other special works upon grapes, peaches, apples, floriculture, landscape gardening and the best horticultural journals.

In Agriculture, Storer's Agriculture, Johnson's How Crops Grow and How Crops Feed, Stewart's and Armsby's Manuals of Dairying and Cattle Feeding, Warfield's Cattle Breeding and other special works upon horses, sheep and swine, together with the current literature upon these subjects.

Anatomy and Physiology.

Anatomy, Physiology and Hygiene are taught to students of the Classical, Scientific, Biological, Veterinary and Normal courses extending throughout both terms of the Freshman year.

At the beginning of the second term a special class is organized for the benefit of Normal students. A thorough working knowledge of these branches is taught by means of lectures, demonstrations and recitations.

This Department is well provided with the apparatus necessary to illustrate the work of the student. The equipment includes papier-mache manikin, and models (Auzoux) of eye, ear, larynx, etc., skeletons, charts, microscopes, etc. Sufficient Histology is given for all practical purposes.

To those who intend to apply themselves hereafter to the study of medicine, this department offers inducements seldom obtained in other educational institutions.

Text-books: Huxley and Youman's, Martin's Human Body, and Martin's Briefer Course.

Chemistry.

The Chemical Department dates from the establishment of the institution. For many years it was under the direction of Dr. Robert Peter, who by his labors in analytical chemistry has done more probably than any other man to develop the abundant mineral resources of the State. The Department remained in the hands of Dr. Peter until 1887, when he resigned. Dr. E. A. Von Schweinitz was then appointed to the vacancy created by the resignation of Dr. Peter. He held the position during the collegiate year 1887-1888, when he also resigned, and then the present incumbent was appointed. For many years the chemical laboratories and lecture room occupied the eastern part of the main College building. In September, 1889, however, the Experiment Station building having been completed, the apparatus and equipment were moved from the laboratories in the main building to more suitable and beautiful rooms on the second floor of the Experiment Station building. The lecture room and the laboratories, qualitative and quantitative of the Chemical Department are exceedingly well adapted to their purpose, and are among the best constructed and most handsomely furnished of any rooms in the College. The qualitative laboratory contains three very large working tables, each of which can easily accomodate ten students. The quantitative laboratory is also well equipped with tables, hoods, water, gas, electricity, etc., and has desk room for at least fourteen students in all. The lecture room is well lighted and heated and beautifully furnished and commodious, having a seating capacity of about seventy-five. Besides the laboratories and lecture room, there

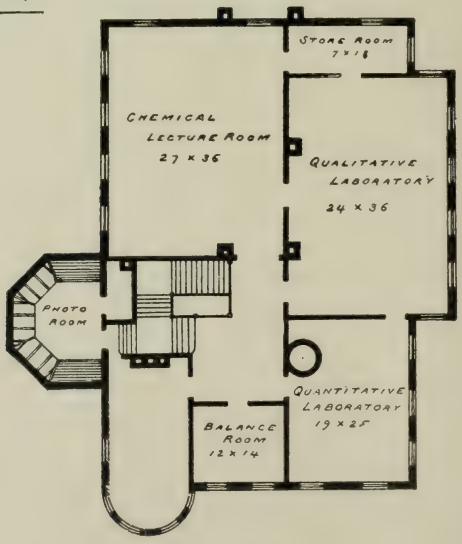
are several other smaller rooms on the same floor set aside for the use of the Chemical Department, an instructor's office, a balance-room and a store-room.

Apparatus.

The Department is well equipped with the commoner forms of chemical apparatus and chemicals. In addition to these it owns several of the more expensive pieces of apparatus; such as several exceedingly delicate balances for analytical work, a grand model Bunsen & Kirchoff spectroscope; platinum apparatus; a complete outfit for electro-plating; vapor density apparatus; a glass model ice machine, etc., etc. This of course will be added to from time to time as the needs of the Department demand and the resources of the institution permit; as it is now, however, the equipment is such as to readily permit the student to obtain, at first hand, a good working knowledge of chemical science.

KENTUCKY AGRICULTURAL EXPERIMENT STATION BUILDING

SECOND FLOOR



ROOMS OF CHEMICAL DEPARTMENT.

Physics Laboratory.

Civil Engineering and Physics.

Civil Engineering.

This Department comprises the study of the application of Mathematics to mechanical problems.

1. *Mechanics.*—This course includes the study of Analytical Mechanics with especial reference to the problems arising in the design of structures and machines; Applied Mechanics, including the analytical and graphical methods of testing forces in structures of all kinds.

Text-books: Bowser's Analytical Mechanics, Merriman's Applied Mechanics.

2. *Bridges and Structures.*—This course includes the theory of the use of materials in framed structures and in bridges built of masonry.

Text-books: Baker's Masonry Construction, Du Boise's Strains in Framed Structures.

3. *Field Engineering.*—This course includes the study of the handling of all kinds of field instruments which are provided by the College, land and railway surveying, projection of maps, construction of public highways and observations as applicable to geodetic problems.

Text-books: Davies's Surveying, Searles's Field Book, Johnson's Surveying, Streets and Pavements.

4. *Municipal Engineering.*—This course includes the study of the subjects of hydraulic engineering in its several branches, and economic handling of the problem of sewerage of cities and sewage disposal.

Text-books: Fanning's Water Supply, Waring's Sewerage and Land Drainage.

5. *Mining.*—This course includes the study of the methods of prospecting for ore, for its extraction, for the proper location and development of mines and of the machinery used in mining operations.

Text-books: Collin's Lectures on Mining.

6. *Advanced Mechanics.*—To those who desire it and who are properly prepared, opportunity will be given for the study of the higher problems in Applied Mechanics according the methods of the Infinitesimal Analysis

Physics.

This school contemplates instruction as laid down in the courses for the several degrees. This requires one year's work. Beyond this, opportunity is offered to those who desire to work in Practical Physics with inducements as to honors for students who work in the Advanced Physics. The instruction in course will include General Physics the laws of physical phenomena as learned from the study of heat, sound, light, electricity and magnetism in the elementary presentation of the subjects. The elementary law of forces, statical and dynamical, will be studied, presuming a knowledge of mathe-

matics through Trigonometry. The effort will be to present the subject of Physics as a branch of all science, keeping in view the intimate relation of all the parts of scientific knowledge and emphasizing the oneness in origin and in development of all the phenomena in the Universe. Encouragement will be given to those who desire to follow this study in its higher phases. Apparatus of costly and modern make enables the student to experiment under the direction of the instructor.

Students in Engineering study Analytical Mechanics, and they can learn the application of higher mathematics to the subject of molecular phenomena. A part of the physical apparatus may be mentioned especially, a large Toepler-Holtz machine, six-inch spark Rhumkroff's coil, grand model Bunsen & Kirchoff spectroscope, with necessary minor pieces.

English.

Preparatory Freshman Class.

First Term.—Rhetoric and Composition; Diction and Sentence Construction; Punctuation; Recitations and exercises on the blackboard.

Second Term.—Narrative Composition; Written Essays, read in class and corrected; Synonyms, Prosody.

Freshman Class.

First Term.—English Prose and Poetry; Interpretations of Masterpieces of English Prose and Poetry; Written Essays, read in class and corrected.

Second Term.—Studies in English Literature.

Each pupil is required to commit to memory and recite in class, selections from the great English poets and prose writers, including parts of Shakespeare's Julius Cæsar and the Merchant of Venice, Bacon's Essays on Studies and Friendship, Milton's L'Allegro and Il Penseroso and extracts from Areopogitica; Bunyan's Gold en City; Dryden's Alexander's Feast; Gray's Elegy; parts of Goldsmith's Deserted Village; passages from Burke's Speech on the Spirit of Liberty in the American Colonies; Burns' Cotter's Saturday Night; Wordsworth's Intimations of Immortality; Coleridge's Hymn to Mont Blanc; the closing passages of Webster's speech in reply to Hayne; Byron's Prisoner of Chillon; Shelly's Ode to the Skylark; Bryant's Thanatopsis; Emerson's Essay on Compensation; Longfellow's Keramos; Holmes' Deacon's Masterpiece; Tennyson's Ulysses; De Finibus, by Thackeray; The Vision of Sir Launfal, by Lowell.

Text-book: Swinton's Studies in English Literature.

Sophomore Class.

First Term.—History of English Literature; Class Reading from Bacon, Burke, Milton, Shakespeare and other great English writers.

Text-books: Shaw's Manual of English Literature and Hudson's Annotated English Classics.

Second Term.—Advanced Rhetoric; Lectures on the Elements of Criticism.

Text-books: Whateley's Rhetoric; Minto's Manual of English Prose Literature.

Junior Class.

First Term.—The Science of Logic; Lectures on Pure Logic, in which Stoicheiology and Methodology are explained and illustrated; explanations and illustrations of the Analytics of Aristotle and the New Analytic of Sir Wm. Hamilton; exercises in Figure, Mood and Reduction; Lectures on Fallacies and the Sources of Error; Lectures on Inductive and Analogical Reasoning; Lectures on Evidence.

Text-book: Sir William Hamilton's Lectures on Logic.

Second Term.—Anglo-Saxon and Early English.

Text book: Carson's Anglo-Saxon and Early English.

Geology and Paleontology.

The exact time in a student's course at which the different subjects comprehended in this Department are studied varies somewhat for the different courses; but the order of succession is as follows:

(1) Physiography (2) Mineralogy (3) Paleontology (4) Advanced Geology. Besides these, in which what follows is intimately based on that which precedes, are two self-contained studies: (5) A Shorter Course in Geology and (6) Economic Geology.

Physiography.

First Term.—Required for Sophomores in the Biological, Seniors in the Scientific and Classical Courses. Normal students have the option between this and (5) the Shorter Course in Geology.

The object of this study is to give the student a somewhat comprehensive view of the earth and its inhabitants. Facts and theories in Physics, Biology, Geography and Astronomy are enlarged upon at greater length than is usual in studies commonly included under the name of Physical Geography. Physiography is especially adapted to those preparing to teach, and to those in the Classical Department, who without wishing to concern themselves much with tech-

nical details, still desire some knowledge of those broad facts and principles of science, which are essential to all who would lay claim to being possessed of a liberal education.

Text-book: Mills' Realm of Nature.

Mineralogy.

Second Term.—Required for Juniors in the Scientific Course. The object of this study is to render the student familiar with the composition and physical characteristics of those common minerals and rocks likely to come under his notice, as well in the ordinary round of every day observation as in geological pursuits. The instruction involves laboratory and text-book work. Crosby's Tables for Determination and Common Minerals and Rocks are used.

Paleontology.

First Term.— Required for Seniors in the Biological and Scientific courses. Lectures on the nature and zoological position of different fossil groups are given, and the student is expected to become familiar with the appearance of the fossils themselves by actual examination. Much of the work involves the use of artificial keys for determination, similar to those used in Botany and Zoology.

Special attention is paid to the fossils common in Kentucky. The Department is well equipped in collections for this purpose. The instruction is almost entirely by lectures and laboratory work.

Advanced Geology.

Second Term.—Required for Senior scientific and biological students and open to others who may have elected to take the Physiography and Paleontology which precedes. It is meant to be the culmination for those who have availed themselves of all the opportunities for the study of Geology offered in this Department. It is to be hoped that some of these may be induced to go farther, and either in their home localities or elsewhere, make a beginning at doing original work. Kentucky with its large areas of practically unexplored territory geologically, offers an especially fine field to young geologists in this respect.

Text-book: LeConte's Compend.

Shorter Course in Geology.

This has been introduced in response to an especial demand from the Normal Department for a course in Geology that would be at once short and self-contained. Civil Engineering Seniors have the option between this and Economic Geology.

Text-book: LeConte's Compend.

Economic Geology.

Second Term.—Required for Seniors in the Chemical Course and open to Civil Engineers and others who may d sire to take it and find no conflict in the schedule.

The characteristics of this study will be the minimum of the organic and the maximum of the inorganic side of Geology. Some of the chief topics treated will be: Common Rock and Vein Forming Minerals; Origin of Ore Deposits; Mining Terms and Methods; Coal, Petroleum, Natural Gas and Asphaltums; Building Stone, Cements, Clays and Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Sanitary Engineering.

Text-book: Tarr's Economic Geology of the U. S.

In addition to the above, a course of lectures on the Relation of Geology to Agriculture, is given in the series of Agricultural Lectures, which come during the winter months.

German and French.

In the Department of Modern Languages it will be the chief aim to impart a fair, scientific knowledge of the languages taught, together with such oral practice as to enable the student, at the end of the prescribed time of study, to express himself with some facility, read easy French or German at sight, and at the same time have a sound foundation laid for more thorough study in the future, if his tastes and pursuits lead to it. It will be the aim to insure a correct pronunciation and familiarity with general rather than special rules.

For those who may wish to pursue the study of German or French beyond the prescribed course, classes will be arranged to introduce them to the history of the literatures of these languages, together with selected readings to illustrate the same.

History and Political Economy.

The course of instruction in this Department includes an outline of Ancient, Mediæval and Modern History. Attention is given to the various forms of government, their characteristic features and points of difference, to the progress of civilization, the origin and development of parliamentary government, the rights and duties of citizenship.

In the period covered, Modern History, England and the United States occupy the most prominent place.

Walker's Science of Wealth is made the basis of instruction in Political Economy. Students are, however, made familiar with the principles upon which rest the rival doctrines of Protection and Free

Trade. The utmost latitude of discussion and investigation is encouraged in order that intelligent opinions may be formed upon the great political issues of the day.

Latin and Greek.

The distinguishing feature of this Department is the method of teaching Latin and Greek Grammar. The inflections, idioms and the syntax are accurately and firmly impressed on the student's memory by incessant work on the blackboard during the whole of the first session. From the first to the last lesson one or more English sentences are given out daily from the book to each member of the class, and he is required to write his task in Latin or Greek, and then to write out fully all the inflections (in Greek with the accents). All work is then carefully corrected by the teacher and instructions given on the lessons of the day, and often on that of the next.

The course and the amount of reading in Latin and Greek authors varies from year to year, according to the capacity of students, or the pleasure of the Professor.

Mathematics and Astronomy.

A thorough knowledge of Arithmetic and of Algebra through quadratic equations, as presented in Wentworth's Higher Algebra is required for admission to the Freshman class.

Freshman Year.

Text-books: Wentworth's Higher Algebra, Wentworth's Plane and Solid Geometry, Wentworth's Trigonometry.

During the first term Algebra and Geometry are studied simultaneously; the work in Geometry being Books I to V inclusive, that in Algebra chapters XXII to XXXIV inclusive.

The second term is devoted to Plane Trigonometry and to the completion of the Higher Algebra.

Sophomore Year.

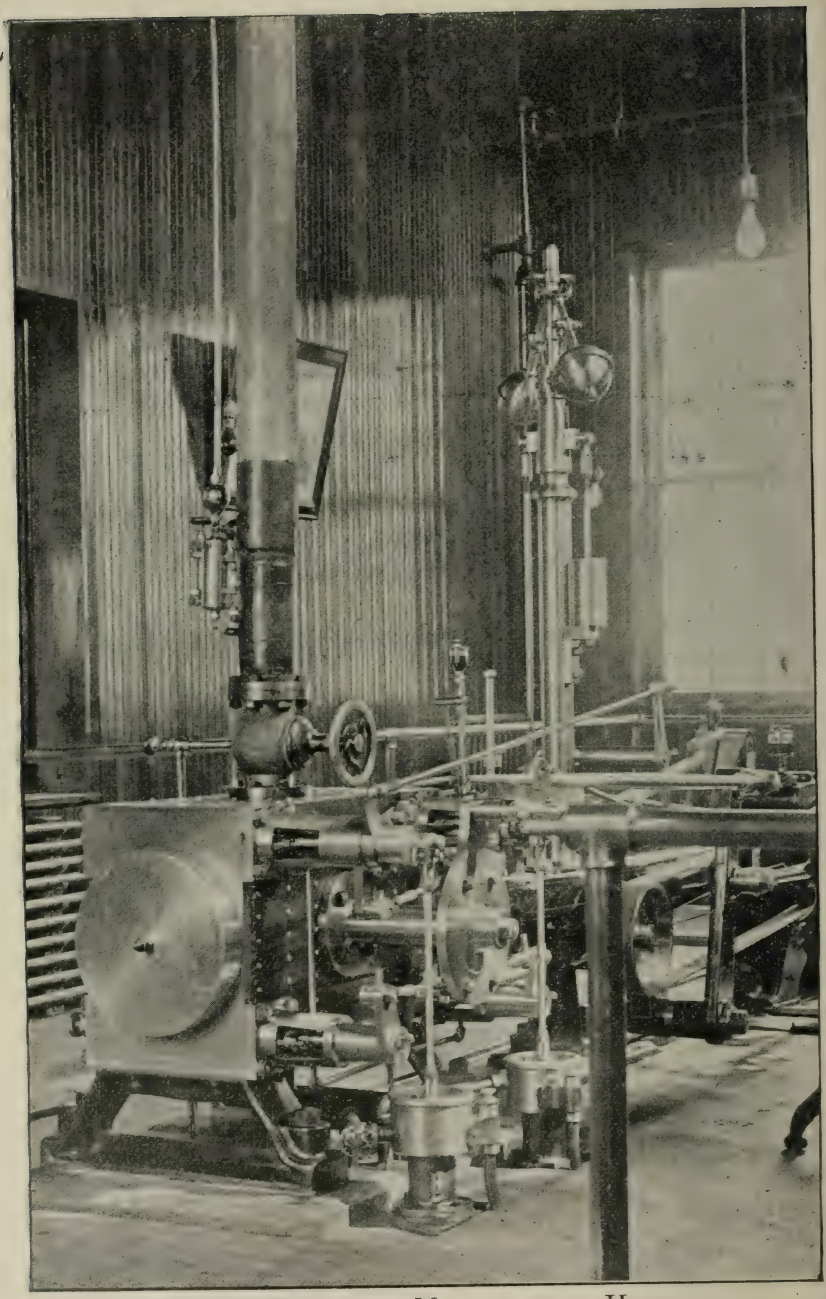
Text-books: Wentworth's Plane and Solid Geometry, Bowser's Analytical Geometry.

The studies of the first term are Solid Geometry, Conic Sections and Sph. Trigonometry, the entire second term being given to Analytical Geometry.

Junior Year.

Text-book: Bowser's Calculus.

The study of Calculus is optional with all students except in the Mechanical and Civil Engineering Courses.



ENGINE ROOM OF MECHANICAL HALL.

Senior Year.

Text-book: Young's Elements of Astronomy. The object of this class is to give to the students a knowledge, as accurate and as extensive as our time will permit, of the phenomena of the heavenly bodies and of their probable condition and history. No efforts will be spared to make the study of this branch of science highly interesting and instructive.

Mechanical Engineering.

This Department has recently been reorganized and is now one of the most completely equipped of any in the College. A description of the new building is given under the head of "buildings." The equipment of the different rooms is briefly described below.

The Drawing-room contains drawing-tables, drawing-boards, curves, scales, tee-squares, and other special drawing apparatus to accommodate thirty students.

The Engine-room contains a 10-inch by 24-inch Hamilton-Corliss non-condensing engine and an 8.5 kilowatt Edison compound dynamo with amperemeter, resistance-box and volt-meter so that the dynamo may be used for experimental purposes.

The Wood-shop contains twenty benches, with complete set of wood-working tools, thirteen wood-turning lathes, each with complete set of turning-chisels, band sawing-machine, universal wood-worker, fret-saw, and grindstone.

The Foundry contains a thirty-inch cupola furnace with a capacity of a ton of metal per hour, brass furnace, twelve complete sets of moulder's tools, twelve benches, also ladles, clamps, core-room, core-oven, pattern-rack, and the tools employed in practical foundry.

The Blacksmith-shop contains a ten-inch steel pressure blower, twelve forges, twelve anvils, three blacksmith vises, an emery grinder, and twelve complete sets of blacksmith tools for carrying on all kinds of iron and steel forging.

The Machine-shop contains six lathes, one milling-machine, one self-feed drill, one planer, one sharper, one tool-grinder, one emery grinder, and twelve iron vises, and benches for vise work in metal.

The Testing-laboratory is equipped with a 100,000-pound Riehle testing-machine, a pair of Crosby indicators, a Corliss engine used exclusively for experimental work, a 51-horse power water tube boiler, a Riehle-Yale extensometer and instruments for measurement of all dimensions.

The Tool-room is supplied with a fine assortment of superior tools for work in iron, steel, brass and wood, and contains such stock and supplies as may be used in construction in the Mechanical Laboratories named above.

The Wash-room contains lockers for sixty-five students and is supplied with marble basins and closets.

The Boiler-house contains a fifty-one horse power Babcock and Wilcox water-tube boiler and a Dean Bros'. No. 3, Steam-pump.

The building is heated by steam and lighted by 130 incandescent and 4 arc lamps.

Metaphysics and Moral Philosophy.

The study of Mental and Moral Philosophy extends through one year. Sir William Hamilton is used as the basis of instruction in Metaphysics, and Janet in Morals. Concurrently with recitations from these authorities, the pupil is made familiar with the principles upon which rival systems of philosophy and morals are based and the arguments by which they are maintained. Ancient and modern systems are thus brought under review, and the necessary data furnished upon which to ground intelligent opinions.

Military Science and Tactics.

Instruction in this Department is both practical and theoretical.

The practical course embraces the U. S. Drill Regulation for Infantry, including the schools of the soldier, company, and battalion in close and extended order; ceremonies; so much of the Artillery Drill Regulations as pertains to the manual of the piece and mechanical manoeuvres; signalling with flag and heliograph; guard duty, and minor tactics.

Theoretical instruction embraces recitations in U. S. Drill Regulations for Infantry and Artillery; instruction in the preparation of reports and returns pertaining to a company: lectures on organization and administration of the United States Army, and general principles governing in the Art of War.

All students below the grade of senior are required to take this course unless disqualified by reason of physical disability.

Pedagogy (The Normal School).

Although organized as a Department of the College, co-ordinate with the other departments, yet the Department of Pedagogy is, more properly, a school in itself, made so by the necessities of the Public School system of the State. Therefore, in addition to offering full work in Pedagogy (Educational Psychology and its applications in School Economy and Educational Methods) this Department also provides academic instruction for teachers who desire to fit themselves for higher grades of work. In administering the Depart

ment the real needs and limitations of the average Public School teacher are kept constantly in view, and the elevation of the common schools of the State is the basic principle of the work.

The Academy (Preparatory).

The Academy is under the immediate direction and management of a Principal and four Assistants, all of whom are teachers by profession, and who have had years of experience as successful educators.

The pupils are subject to the same rules and regulations as the students of the College. Their attendance at the College is required only during the hours of recitation and other prescribed College exercises, such as chapel, drill, etc., the preparation of their lessons being made elsewhere.

The courses of instruction in the Academy are provided for those who enter directly from the common schools, and are intended to supply the necessary training intermediate between the course of study prescribed by the State Board of Education for the common schools and the Freshman Class of the College.

Applicants for admission to the Academy, if county appointees must be, at least, fourteen years of age, and must be provided with credentials of scholarship from the County Superintendent. They must also pass a satisfactory examination in spelling, reading, writing, arithmetic, history of the United States, English grammar and geography, in order to be admitted.

Other applicants must be at least fifteen years of age, and must have completed the common school course prescribed by the State Board of Education. They must pass a satisfactory examination in spelling, reading, writing, English grammar through syntax, and geography, in order to be admitted. Applicants from the city will be required to pass an examination on all the subjects embraced in the first year's Scientific course in the Academy. Those who enter at any other time than the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes which they propose to enter.

Students matriculated in the Academy will be required to pursue one of its prescribed courses of study and will not be permitted to take any work outside of this course except on the recommendation of the Principal.

Entrance Examinations.

For the benefit of those, other than county appointees, who desire to know the character of the examination which applicants for admission will be required to pass, the following examination papers are submitted as a sample. It is not to be understood that the pupil will be examined *on these questions*, but that they are a specimen

of the minimum attainments necessary to enter the Academy of the College. Those who expect to enter more advanced classes will be required to pass an examination on all that the class which they propose to enter has passed over.

I. Arithmetic.

Find the greatest common divisor and the least common multiple of 899 and 961.

Simplify $2\frac{1}{4} \times \frac{10\frac{2}{4} - 4\frac{11}{12}}{6\frac{3}{16} + 7\frac{2}{3}} \div \frac{3\frac{5}{11}}{1\frac{2}{5} \times 9\frac{1}{11}}$

Find the number of bushels that will fill a bin 8.5 feet long, 4.5 feet wide, 3.5 deep.

The longitude of Rome is 12° 27′ 14″ east; the longitude of Chicago is 87° 35′ west; find the difference of time between the two places.

What will be the cost of plastering the walls and ceiling of a room 27 feet 4 inches long, 20 feet wide, and 12 feet 6 inches high, at 27 cents per square yard, if 20 square yards be deducted for doors, windows and base-boards?

If a train, at the rate of $\frac{5}{13}$ of a mile per minute, takes $3\frac{1}{4}$ hours to reach a station, how long will it take at the rate of $\frac{7}{15}$ of a mile per minute?

A and B can do a piece of work in $2\frac{1}{2}$ days, A and C in $3\frac{1}{3}$ days, B and C in $4\frac{1}{4}$. Required the time in which all these working together can do the work and in which each can do the work alone.

A farmer sowed 5 bushels, 1 peck, 1 quart of seed, and harvested from it 103 bushels, 3 pecks, 5 quarts. How much did he raise from a bushel of seed?

Reduce 9 square chains, 11.25 square rods, to the decimal of an acre.

If a bar of iron $3\frac{1}{3}$ feet long, 3 inches wide, $2\frac{2}{4}$ inches thick weighs 93 pounds; what will be the weight of a bar $3\frac{2}{3}$ feet long, 4 inches wide, and $2\frac{1}{2}$ inches thick?

II. English Grammar.

Give illustrations of all the parts of speech.

Define pronoun, preposition, adverb, clause and phrase.

How are the possessive cases of nouns and pronouns formed?

Define a simple sentence, a complex sentence, and give examples of each.

Analyze the following sentence and parse in full all the words in it:

"The soldiers of the tenth legion, wearied by their long march, and exhausted from want of food, were unable to resist the onset of the enemy."

Laboratory of Zoology and Entomology.

III. Geography.

What are the circles of the earth?
What are the meridians?
Define latitude and longitude.
What two meridians bound the hemispheres?
Define the two principal forms of government.
Bound North America and describe its political divisions.
Why is the climate of Western Europe different from that of America in similar latitudes?
Describe the mountains, principal rivers and lakes of Asia.
Describe the natural routes of commerce.

Veterinary Science.

This department is provided with a commodious and well appointed dissecting room, which was but recently completed and is equipped with the best modern apparatus.

Zoology and Entomology.

The Department was established on an independent footing with the beginning of the school-year 1890-'91. Since then the larger of the two rooms occupied by it has been furnished as a laboratory in order that a practical knowledge of Zoology and Entomology may be given to students, and that the instruction may be more effective as a training of the powers of observation and reflection. The Laboratory is now provided with tables, each accomodating, if necessary, two persons, and is furnished with reagents for making simple tests, and for staining and otherwise treating tissues to prepare them for study with the microscopes. The equipment and apparatus consist of eighteen microscopes, such as are used in the best laboratories in this country and Europe, two microtomes, a Schanze and a Thoma, both imported from Germany for the Department, of paraffine baths of the Naples Zoological Station pattern, ten dissecting stands made for us by the Bausch & Lomb Optical Co., of Rochester, New York, dissecting trays, bell jars, and a full set of Leuckart and Nitsche's celebrated zoological charts. Much of the illustrative material used by us is collected by us within the State, such material being considered most valuable as serving to familiarize students with objects they are likely to encounter in after life. A good collection of birds is available for analytical work, and students taking the Biological, Scientific and Agricultural courses are required to learn the use of such "keys" as Jordan's Manual of Vertebrate Animals, and to know something of the classification of birds, and of the more common species A similar collection of fishes is also available for analytical work. For the study of vertebrate anatomy, a small collection of mounted skeletons has recently been secured, including

such types as the gibbon, hyena, porpoise, duckbill, bird, turtle, lizard, fish and frog. It will be added to from time to time, since it is intended to provide for a special course in Osteology. Where it is impossible to provide fresh material, alcoholic types of the different groups of animals are used, so that each student dissects and otherwise examines at least one example of every animal sub-kingdom. Types of every class of each sub-kingdom are examined in this way, where time and available material permit. We now provide examples of all the peculiar groups of salt-water animals, and by means of them are able to give a very good knowledge of the structure and relations of such forms as the squid, star-fish, sea-urchin, sea-anemone, ascidian, and the like.

The entomological work is made a separate feature in this Department, partly because of the great extent of the class Insecta, but chiefly because of its economic importance. If, as is estimated by our best entomologists and statisticians, we annually lose in this country, from the depredations of injurious insects, not less than $100,000,000 it is highly important that a knowledge of insects and their habits should be disseminated among the people, and it is especially important in a State like Kentucky, where the leading industry is agriculture. It has been urged that the reduction of a crop to the extent of one-fourth or one-half its value by insects, should be regarded as a tax of twenty-five or fifty per cent. on its full value. Such a tax is collected year after year, often without an attempt at resistance It is the purpose of the entomological work at the College to place in the hands of students, who expect to make farming their occupation, such means of defense against loss as are known to those who have given the matter study. The Department is especially well provided for in this direction, having the benefit of the work done at the Experiment Station, and having access to the collections, apparatus and library accumulated for Station work. The collection now contains examples of most of the injurious insects which occur in the United States and is constantly being enlarged. The Station is well supplied with breeding cages for use in studying the habits and life-histories of insects, so that students who wish to do so have an opportunity to observe for themselves the various stages presented by a developing insect, and may see them, in many cases, actually engaged in their destructive work. An insectary, which we hope soon to add to our facilities, will give us increased opportunity in this field of investigation.

Degrees.

The degrees conferred are Bachelor of Agriculture (B. Agr.), Bachelor of Science (B. S.), Bachelor of Arts (B. A.), Bachelor of Pedagogy (Ped. B.), Civil Engineer (C. E.), Bachelor of Mechanical

Engineering (B. M. E.), Master of Agriculture (M. Agr.), Master of Science (M. S.), Master of Arts (M. A).

The Schedules of subjects presented below embrace the minimum of requirements for a degree in each of the several courses.

Acquirements in Language, in Mathematics, in Natural Science or in the philosophical sciences beyond the limits of the schedules will entitle to the ordinary pass degree with the addition *cum laude*, *magna cum laude*, or *summa cum laude*, according to the extent and variety of the additional subjects presented for examination.

For the degrees of B. Agr., B. S., B. A., Ped. B., B. M. E., and C. E. an actual membership of at least one year in this College is required, and a satisfactory examination on the *entire Course* of study.

For the degrees of M. Agr., M. S., and M. A., a satisfactory examination is required on a course of post-graduate studies prescribed by the Faculty, and covering a period of two years.

To those who do not complete the entire Agricultural, Scientific, Classical or Engineering courses, but only certain parts thereof, certificates of proficiency may be given for those departments of study completed.

No degrees are conferred upon graduates in the Commercial Department; but diplomas are given to those who complete the course of study embraced therein.

Courses

of

Study.

(Arranged in Alphabetical Order).

Course in Agriculture.

Faculty of Instruction.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

C. W. MATHEWS, B. S.,
Professor of Agriculture, Horticulture and Botany.

(Arranged in alphabetical order).

S. E. BENNETT, D. V. M.,
Professor of Veterinary Science.

C. D. CLAY, 1st. Lieut. U. S. A.,
Professor of Military Science.

H. GARMAN,
Professor of Zoology and Entomology.

F. M. HELVETI, A. M.,
Professor of German and French Languages and Literature.

J. H. KASTLE, PH. D.,
Professor of Chemistry.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

J. P. NELSON, C. E., M. E.,
Professor of Civil Engineering and Physics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

JAMES G. WHITE, A. M.,
Professor of Mathematics and Astronomy.

SCHEDULE OF COURSE IN AGRICULTURE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2 to 4 P. M.
Freshman Year.	Military Science. (a)	English Literature.	Plane Geometry.	Algebra.	Physiology. (a)	(Friday) Drawing.
	Military Science. (a)	English Literature. (a)	Plane Trigonometry.	Botany. (a)	Physiology.	(Friday) Botany.
Sophomore Year.	Military Science. (b)	Zoology. (a)	Zoology. (a)	Botany. (b)	Botany. (b)	Physiography. (a)
	Military Science. (b)	Zoology. (a)	Zoology. (a)	Logic. (b)	Chemistry. (a)	Wood Work, Forging, &c. (b)
Junior Year.		Agricultural Chemistry. (b)	French.	Botany.	Botany.	Chemical Laboratory.
		Entomology. (b)	French.		Stock Breeding, Feeding, Dairying. (b)	Horticulture. (a)
Senior Year.		French.	Soils, Draining, Fertilizers. (b)	Veterinary Science. (a)	Physics.	Horticulture. (b)
		French.	Political Economy. (b)	Veterinary Science.	Thesis.	

Students who can not take the regular course are advised to take a two years' course, the studies of the first year being those marked (*a*) in the above schedule, those of the second year being marked (*b*).

Course in Agriculture.

The distinctive feature of the Agricultural Course is the instruction in those branches of study which bear the most direct and practical relation to agricultural pursuits. It includes as subjects of primary importance, the study of General and Agricultural Chemistry, General Zoology and Entomology, Botany, Horticulture, Geology, General Agriculture, Veterinary Science, Wood Work, and Forging.

In addition to these subjects the student devotes considerable time to the general work of other departments, including a year each in English and Mathematics, courses in Drawing, French, Physiology, Physics, Political Economy, and Logic.

Agriculture.

The subject is taught by means of text-books and lectures, using as illustration the work of the farm, garden and greenhouse, all of which are fully equipped and in active operation. The first term is devoted to the subject of Soils, their origin, character and cultivation, Draining and Irrigation. Fertilizers, Farm Economy, etc. The second term is occupied with the subject of Breeds of Stock, Principles of Breeding and Feeding, and Milk, including its production and manufacture into the various dairy products.

For the study of Stock Breeding and kindred subjects, the location of the College is exceptionally favorable, being situated in the center of the far-famed Blue Grass region of Kentucky, with its numerous herds of high bred cattle and horses. In the entire work of this course material aid is rendered the student by the important experiments of the State Experiment Station, which are at all times available for observation and study.

Horticulture.

The work in this Department begins in January of the Junior year and extends through two terms or an entire calendar year.

The time allotted to the subject is divided between lectures, recitations and actual practice in horticultural operations, special prominence being given to the latter feature of the course.

In the lectures are discussed the principles underlying horticultural practices; the propagation of plants; the physiological considerations upon which are based the operations of budding, grafting, pruning, training, &c.; greenhouses; their construction, heating and management, and vegetable, fruit and landscape gardening. In connection with the lectures, the work in the greenhouses, and upon

the College and experimental grounds, is freely used for illustrative purposes, and occasional visits are made to the greenhouses, nurseries, market and fruit gardens, and the canning factory, all of which are well represented in or near Lexington.

The Department of Horticulture of the Experiment Station now has a large variety of orchard and small fruits growing upon the College farm, and the new and improved varieties are each year added as they are introduced. An extensive list of vegetables is also grown each year, and these with the experiments constantly in progress are always available for purposes of instruction.

In the practical part of his studies, the pupil is not only taught the best methods of doing his work, but is encouraged to seek for the principles which make such methods best.

He performs for himself the various operations of seed testing and seed sowing; propagating by cutting, layering, division, etc.; budding, grafting, crossing, hybridizing, and other forms of horticultural practice.

In order to make this work of the greatest value to the student, he is required throughout the course to make accurate observations and careful notes upon his progress and results in all these processes.

Botany.

This subject is studied for three terms of the course, the instruction taking the form mainly of guidance of the student in laboratory and field work, and it is the constant effort of the instructor to make the work as interesting and practical as possible. It begins in January of the Freshman year with a study of the common seeds of the garden. These are sown by the student and the plantlet is carefully studied, and drawings are made in all stages of its development. The work is continued with a study of buds, roots and stems with their modifications, and the structure of all parts of the mature plant. This form of instruction continues until the middle of the term, and the remainder of the time is occupied with analysis of the local flora and other field work. The next term beginning in September, is devoted almost wholly to Economic Botany, including the study of common weeds and grasses; the most important plants used as food, medicine, or in the arts; and forestry.

The third term beginning in September of the Junior year, is occupied with the subjects of Vegetable Histology and Cryptogamic Botany, especially the fungi injurious to field and garden crops. Each student is supplied with a compound microscope and other necessary appliances of histological study. While engaged with fungus diseases of plants, special attention is given to the practical methods of combating them.

Zoology.

Two hours are given each day during the Sophomore year to the study of Zoology; laboratory work, recitation and lecture, alternating according to the requirements of the class. Typical examples of each sub-kingdom of invertebrate animals are studied in the laboratory, practice in dissection, comparison, description and sketching being given, together with a working knowledge of the compound microscope. Systematic Zoology is taught at the close of the year by the use of analytical keys and prepared specimens of birds and fishes.

Economic Entomology.

In entomology the student is required to make careful examination and dissection of examples of the more important orders of insects, his knowledge of structure and classification being made as far as possible practical in character. With this knowledge as a foundation, he is expected to familiarize himself with the stages of the common insects, by a study of living and prepared specimens, until he can recognize them at sight when met in the field or garden. Brief accounts of the life-histories of the more injurious species are supplied each student to be used in connection with laboratory and field work During the term a small collection of insects is prepared and classified by each pupil. The term's work is completed by instruction in methods of preparing and using insecticides.

Chemistry.

In order to meet the needs of the students in agriculture, the following course in chemistry has been arranged. During the second term of the Sophomore year the course consists of lectures and recitations, five hours weekly, upon the chemistry of the non-metals, together with such portions of chemical theory as are absolutely necessary for a thorough understanding of the work in hand.

The laboratory work during the first term of the Junior year may be regarded as a continuation of the work indicated above, and is intended in the first place, to familiarize the students with the general principles of chemical manipulation, and the use of the simple forms of chemical apparatus; secondly, to give him a fairly accurate knowledge at first hand, of the occurrence, preparation, properties and uses of the more common metallic elements and compounds. In this connection instruction is given in the methods employed in the separation and recognition of such elements and compounds as pertain directly to plant nutrition and growth. The laboratory work is followed by a special course in Agricultural Chemistry proper. This consists of lectures and recitations five hours weekly throughout the second term of the Junior year. Its general aim is to thoroughly acquaint the student with the composition of the soil, the atmosphere and water, and their relations to the plant as sources of plant food.

The chemistry of tillage, irrigation and rotation is fully discussed, together with the methods employed in determining the composition and value of commercial fertilizers and manures.

Veterinary Science.

Agricultural students are required to take Veterinary Anatomy five hours a week during the Senior year. Students in this Department may attend the Clinic should they desire to do so.

The Department is amply equipped with instruments, apparatus, etc., for the performance of all operations and the treatment of all diseases. The Library also contains a choice collection of Veterinary works, which will be open to Agricultural students at all times.

Wood Working and Forging.

The course in Shop Work is intended to give young men such a training in the use of carpenter's bench tools, and in iron and steel forging, that they will be able to make any ordinary repairs about a farm, in either iron or wood.

Student Labor.

Students holding certificates as county appointees have the privilege of working for pay upon the College farm and gardens during the afternoons and Saturdays, when such labor does not interfere with instructions in class room and field. In the opportunities for compensated labor upon the grounds, preference will be given the students of the Agricultural Course, and their hours for study will be so arranged as to aid them as far as practicable in their efforts for self-support. It cannot be expected, however, that the average student, having only unskilled labor to offer, will be able to pay the entire expenses of his college course by this means. The maximum compensation for ordinary labor is eight cents per hour; for skilled labor ten cents may, by special contract, be paid.

Special Course in Agriculture.

(Two years, not leading to a degree).

It is believed that there are a considerable number of farmers' sons, who, on account of lack of time or means, would hesitate to undertake a full college course of four years, who would yet be glad of an opportunity to gain the benefits of a two-years' course. Candidates for this course must be at least eighteen years of age. While it is believed that an earnest and somewhat mature student can spend two such years very profitably, every young man entering the course is urged to begin the full course of four years if there is any possibility of completing it.

It is often the case that a student earnestly desiring a thorough education will discover some means of finishing a complete course where at first it seemed impracticable.

Course in Biology.

Faculty of Instruction.

JAMES G. WHITE, A. M., Dean.,
Professor of Mathematics and Astronomy.

H. GARMAN,
Professor of Zoology and Entomology.

(Arranged in alphabetical order).

CHAS. D. CLAY, 1st Lieut. U. S. A.,
Professor of Military Science.

F. M. HELVETI, A. M.,
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Professor of Civil Engineering and Physics.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

TABLE FITTED FOR WORK IN ZOOLOGY.

SCHEDULE OF COURSE IN BIOLOGY.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2–4 P. M.
Freshman Year.	Military Science.	English Literature.	Plane Geometry.	Algebra.	Physiology.		Drawing.
	Military Science.	English Literature.	Plane Trigonometry.	Botany.	Physiology.		(Friday) Botany.
Sophomore Year.	Military Science.	Zoology.	Zoology.	Botany.	Botany.		Physiography.
	Military Science.	Zoology.	Zoology.	Botany.	Botany.		Geology.
Junior Year.		Osteology.	French.	German.	Physics.		
		Botany	French.	German.	Chemistry.	Botany.	
Senior Year.		French.	Comparative Embryology.	Comparative Embryology.	German.	Astronomy.	Chemical Laboratory.
		Entomology.	Political Economy.	Logic.	German.		Thesis work in Botany or Zoology.

Course in Biology.

The Course in Biology is designed for those who prefer an education with a foundation in the natural sciences. It is adapted especially to meet the wants of students who are looking toward a career as specialists in Biology, as teachers of natural science, and for those who intend to study medicine after completing college work. Two years of Zoology and Embryology, one term of Entomology, two years of Botany, one year of Anatomy and Physiology, one year of Chemistry, one year of Geology, and one term of Physics, give character to the course. The other branches are offered as in one way or another accessory to the training and knowledge which these studies give. In the sciences of this course laboratory work is made prominent. Field work is done when the nature of the subject permits. Text-book and lecture are employed chiefly to elaborate the subjects and for fixing and explaining facts acquired.

Zoology.

During the Sophomore year two hours each day are given to the study of this branch. The "type method" is employed, each student being provided with written directions for the examination and dissection of examples of the chief groups of the animal kingdom. The study of these types constitutes the basis of the work in this line. During the year students are expected to acquire also an acquaintance with Systematic Zoology by the use of analytical keys and prepared specimens of birds and fishes. In the first term of the Junior year one hour each day is again given to Zoology, attention being confined to vertebrates. The work of this term serves as a preparation for the Embryology, which is studied during the first term of the Senior year. The Zoological Laboratory is now provided with the best of microscopes, microtomes, paraffine baths, and other appliances for practical work

Entomology.

Special work in this branch of Zoology is provided for in the latter part of the Sophomore year. The subject is taught by the use of types, which are dissected and examined with the aid of the microscope.

Botany.

For two years the student devotes two hours per day to the various divisions of this subject, with the option of an additional term for original investigation as the basis of a graduating thesis.

The work begins in the second term of the Freshman year in January, and is at first almost identical with that assigned to students in other courses; beginning with a study of seeds, their germination

Table Fitted for Work in Botany

and development, followed by a critical study of the structure of a typical mature plant and its most important modifications. This work is accompanied throughout by drawings and written descriptions of the various forms studied, thus constantly testing and developing the accuracy of the pupil's observative and descriptive powers.

As soon as the out-door plants begin to blossom the work is largely transferred to the field, and the remainder of the term is occupied mainly with the collection and analysis of the local flora.

In the second term, beginning the Sophomore year, the work of collecting is continued and is accompanied by a careful study of the more difficult orders, such as Compositæ, Gramineæ and Cyperaceæ.

During the term topics for special study are assigned to each student, the results being presented to the class in the form of a short paper for criticism and inquiry. These topics include a wide range of subjects, such as a study of some special group of plants, some plants of economic value, subjects in plant physiology, etc.

The third term is occupied mainly with work in microscopy, including Histology and a study of the best known groups of the lower cryptogams.

During the fourth term the work of the student is assigned with reference to his individual tastes and requirements, and is intended to be a continuation of some subjects commenced in the earlier parts of his course, such as Plant Physiology, Systematic Botany, Histology, Officinal Plants, or Cryptogamic Botany

Anatomy and Physiology.

The facilities provided for the study of Anatomy and Physiology are excellent. This Department is well supplied with models, charts, skeletons, microscopes, etc.

To those intending upon a professional career, and especially those contemplating the study of medicine and surgery, the instruction received in these branches will be of great value. Taken in connection with the other subjects, which with it make up the Biological course, a good foundation is laid for students intending to devote themselves hereafter to the study of medicine.

Hygiene and preventive medicine are taking such high rank, that it becomes the duty of all to make themselves familiar with physiological anatomy and the essentials of physiology.

Course in Chemistry.

Faculty of Instruction.

JAS. G. WHITE, A. M., Dean,
Professor of Mathematics and Astronomy.

JOS. H. KASTLE, PH. D.,
Professor of Chemistry.

(Arranged in alphabetical order).

C. D. CLAY, 1st Lieut., U. S. A.,
Professor of Military Science.

H. GARMAN,
Professor of Zoology and Entomology.

F. M. HELVETI, A. M.,
Professor of German and French Languages and Literature.

C. W. MATHEWS, B. S.,
Professor of Agriculture, Horticulture, and Botany.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

JAS. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

SCHEDULE OF COURSE IN CHEMISTRY.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2 to 4 P. M.
Freshman Year.	Military Science.	English.	Geometry.	Algebra.	Physiology.	
	Military Science.	English.	Trigonometry.	Elementary Chemistry.	Physiology.	
Sophomore Year.	Military Science.	Solid Geometry.	French.	German.	Physics.	Physiography. (a)
	Military Science.	Analytical Geometry.	French.	German.	Physics.	
Junior Year.		Zoology.	Zoology.	Mental Philosophy.	German.	Chemical Laboratory.
		Geology.	Advanced Chemistry.	Logic.	German.	Chemical Laboratory.
Senior Year.		Calculus.	History.	Botany.	Botany.	Chemical Laboratory.
		Calculus.	Political Economy.	Economic Geology.	Gen'l Reading.	Thesis.

Course in Chemistry.

The Chemical Course has lately been established with the view to preparing the student for life work in the Science of Chemistry, and also with the view to fitting him for the study of medicine and kindred professions. To the accomplishment of this purpose the following course of study, extending over four years, has b en adopted.

Studies Required.

The first year is devoted to the study of English, Mathematics—Algebra, Plane Geometry and Trigonometry; Chemistry—Lectures and laboratory work on the non-metals; and Physiology.

The second to Mathematics; Solid and Analytical Geometry; French, German and Physics.

The third to Zoology, Geology, Metaphysics, Logic, German, Theoretical Chemistry, and laboratory work on the metals.

The fourth to Calculus, History and Political Economy, Botany, Economic Geology, Reading of advanced chemical topics, and Thesis.

The Training in Chemistry Proper.

The study in Chemistry proper, as outlined in the above is sufficient in its scope to bring the student in close contact with the great fundamental truths of the Science, and to make him enthusiastic and capable in his profession.

The course in General Chemistry, extending through the second five months of the first year, consists of lectures, laboratory work and recitations five times weekly on the non metals and their compound and the simpler laws of chemical change. The lectures are abundantly illustrated by suitable and instructive experiments; the laboratory work is carefully directed and the student receives every possible encouragement to do excellent work.

During the second year the study of Chemistry is optional, the time of the student being devoted to other studies, all of which are useful and essential not only to the study of Chemistry but to every kind of scientific training.

In the third year the study of Chemistry is resumed with laboratory work and Theoretical Chemistry. The study of Theoretical Chemistry, consisting of lectures, recitations and readings five times weekly during the first half year is intended to acquaint the student with the greatest generalizations and theories of modern chemistry and their historical development. In this connection fifty lectures will be delivered upon the following general topics: Ten upon the Atomic Theory, its development, and the methods at present used in the determination of atomic weights; fifteen upon the Compounds of Carbon, Isomerism and Structural Formulæ; ten upon the History of

Chemistry; five upon the Periodic Law; five upon the Spectroscope, Spectrum Analysis, and the Chemistry of the Heavenly Bodies; five upon the more important, current chemical investigations.

By way of supplementing the work of the lecturer, students pursuing this course will be required to do a certain, rather liberal, amount of general reading upon the matter treated of in the lectures or upon such other topics as may be assigned by the instructor. For this purpose the nucleus of a chemical library has been formed, which may be freely consulted by any or all students in the College, and the leading chemical journals of this and other countries, will there be kept on file. The broadening influences of such a course can scarcely be overestimated, and students who complete it satisfactorily will find themselves, in some measure at least, abreast of the highest and best chemical thought of our time.

The laboratory work, during the first term of the third year, is devoted to the study of the metals, and their more important compounds, and qualitative analysis. This work is intended to supplement the work of the first year upon the non-metals; and also to familiarize the student more fully with the commoner methods of chemical manipulation and practice. The laboratory work of the first term will be followed up during the second with laboratory work in quantitative analysis; by means of which the student learns the value of precise and accurate work, and the constancy and definite character of chemical reactions. The chemical work of the last year will consist of such special work as the student may elect to pursue; together with the preparation of a thesis embodying the results of this special work. The object of such an arrangement is to perfect him in that particular branch of the science for which he shows a liking or a particular talent. In this connection it may be well to state that facilities are offered for special work along the following lines: Pure Chemistry, Organic Chemistry, Agricultural Chemistry, general analytical work, and special analytical work on fertilizers, iron and steel, and fuels.

Chemistry Required in Other Courses.

Instruction in chemistry in other courses of study, such as the Scientific, Classical, etc., is designed to meet their special needs in this direction.

In the Classical Course the study of this science extends over five months, five times weekly; and is intended simply to introduce the student to the subject by way of general education.

In the Scientific Course the work extends ever fifteen months, a portion of this time is devoted to the study of the metals and qualitative analysis by means of laboratory work; and a third portion to the study of theoretical chemistry. In the course of mechanical

Engineering the instruction is adapted as completely as possible to the need of the students in this department. Instruction in chemistry in this course extends over a period of fifteen months ; five of which are devoted to the study of the non-metals and their compounds ; five to the chemistry of the metals with special reference to the properties which render then useful to the mechanician ; and also with reference to their mode of occurrence to nature and the methods of obtaining them from their ores. The last five months of the course are devoted to the study of quan itative analytical methods with special reference to the quantitive determination of the amounts of different metals in the useful alloys, and of the amounts of carbon and other substances in iron and steel. For students in Civil Engineering a similar course has been provided, extending over ten months. The first five of these are devoted to the study of Elementary Chemistry, and the last five to the study of those substances used as building material : metals, alloys, and mineral substances which are used in construction.

For the benefit of students of Agriculture a special course in Agricultural Chemistry has been arranged, the general aim of which is to acquaint th student with the chemistry of those elements which enter into the composition of plants, and which are essential to their life and growth. A study of the composition of the soil, air and water, and their several relations to the plant as sources of plant-food, forms a large and important part of this work. Also the chemistry of tillage, irrigation and rotation, and the composition and value of commercial fertilizers and manures.

For students in Biology, also, instruction in Chemistry is adapted as fully as possible to their needs. Instruction in this branch extends over ten months, five times weekly. The first half of this time is devoted to the study of Elementary Chemistry : this is followed by laboratory work in the afternoon upon those elements which are regarded as essential to living things, animal and vegeta ble. Chemistry also forms an important branch of study in the Veterinary Course. It extends over ten months and includes Elementary Chemistry together with such special study as the Director of this course may see fit to assign.

Course in Civil Engineering.

Faculty of Instruction.

J. P. NELSON, C. E., M. E., Dean,
Professor of Civil Engineering and Physics.

(Arranged in alphabetical order).

F. PAUL ANDERSON, B. M. E.,
Professor of Mechanical Engineering.

C. D. CLAY, 1st Lieut., U. S. A.,
Professor of Military Science.

F. M. HELVETI, A. M.,
Professor of German and French.

J. H. KASTLE, PH. D.,
Professor of Chemistry.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

M. L. PENCE, M. S.,
Associate Professor of Civil Engineering.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

J. H. WELLS, B. M. E.,
Assistant Professor of Mechanical Engineering.

JAS. G. WHITE, A. M.,
Professor of Mathematics and Astronomy.

SCHEDULE OF COURSE IN CIVIL ENGINEERING.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2–4 P. M.
Freshman Year.	Military Science.	English Literature.	Plane Geometry.	Algebra.	Drawing and Wood Work.		Shop Work.
	Military Science.	English Literature.	Plane Trigonometry.	Draughting, Surveying.	Drawing, Pattern Work.		Shop Work.
Sophomore Year.	Military Science.	Solid Geometry.	Surveying and Locations.	German.	Physics.		Shop Work, Field Work.
	Military Science.	Analytical Geometry.	Descriptive Geometry.	German.	Physics.		Shop Work, Field Work.
Junior Year.		Calculus.	Graphical Statics	Draughting.	German.		Field Work.
		Analytical Geometry.	Applied Mechanics.	Geodesy.	Chemistry.		Physical Laboratory.
Senior Year.	Stereotomy.	Bridges and Structures.	History.	Draughting.	Sanitary Engineering.	Astronomy.	Chemical Laboratory.
		Stereotomy.	History.	Bridges and Structures.	Hydraulic Engineering.		Geology.

Course in Civil Engineering.

This course comprises primarily the study of subjects necessary to fit students for the practice of this profession in any of its branches; and, secondarily, the study, so far as is possible, of such other subjects as belong to a liberal education.

Applicants for this Degree are required to pass a satisfactory examination on all the subjects comprised in the course; to attend all of the classes in at least the Junior and Senior years, and to comply with the other rules of the College.

The course of study occupies four years. Students are not admitted to advanced classes unless they show, after proper examination, that they are amply prepared for this privilege.

The theory of Engineering Work is taught by text-books and lectures, and the practical application of the theory is exemplified by work in the field and by the examination of model structures.

The work of a civil engineer may properly be the charge of the building and handling of railways, both steam and electric; highways of all kinds; bridges and all other structures; surveying in the simple branches of land measurement and in the higher work of geodetic and map surveys, including surveys by astronomical observations; Municipal Engineering in all of its important branches, and the location and economic opening of mines. This course of study is designed to prepare its graduates for the proper handling of all such work.

In addition to the purely technical subjects with which a civil engineer must be familiar, the course provides for the study of English Literature and History, Political Economy and German.

The practical knowledge of materials used in structures is provided for by a course of work in the Mechanical Laboratory in connection with the study of the theory of working in wood, iron and steel.

Practical use of the instruments belonging to this profession is taught by work in the field, including land surveying, railway location, triangulation, and observation with the solar transit for latitude, time and true meridian. Methods for finding longitude and latitude are practiced. This practical work includes the use of Compass, Transit, with solar attachment, Level, Plane Table, Aneroid Barometer and other instruments, all of which are furnished by the College.

To those who desire it and who are properly prepared, opportunity will be offered for the study of advanced classes in any of the subjects forming a part of this course. To Post-Graduates such an opportunity offers a means for extended study of the application of the Infinitesimal Analysis to problems in mechanics.

Course in Ancient Languages

(CLASSICAL).

Faculty of Instruction.

JOHN H. NEVILLE, Dean,
Professor of Latin and Greek Languages and Literature.

(Arranged in alphabetical order).

R. L. BLANTON, M LIT.,
Assistant Professor of Ancient and Modern Languages.

C. D. CLAY, 1st Lieut., U. S. A.,
Professor of Military Science.

F. M. HELVETI, A. M.,
Professor of German and French Languages and Literature.

J. H. KASTLE, PH. D.,
Professor of Chemistry.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

JAS. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

SCHEDULE OF COURSE IN ANCIENT LANGUAGES (Classical).

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2 to 4 P. M.
FRESHMAN YEAR.	Military Science.	English Literature.	Plane Geometry	Algebra.	Exercises, Livy.		
	Military Science.	English Literature.	Plane Trigonometry.	Physiology.	Cicero.		
SOPHOMORE YEAR.	Military Science.	Solid Geometry.	English.	German.	Herodotus, Plato.		
	Military Science.	Analytical Geometry.	English.	German.	Thucydides.		
JUNIOR YEAR.		Exercises, Horace.	French.	Exercises, Greek Grammar	German.		
		Tacitus, Juvenal.	French.	Exercises, Greek Drama.	German.		
SENIOR YEAR.		French.	History.	Mental Philosophy.		Astron-omy.	Physiography.
		French.	History, Political Economy.	Logic.	Chemistry.		

Course in Mechanical Engi= neering.

Faculty of Instruction.

F. PAUL ANDERSON, B. M. E., Dean,
Professor of Mechanical Engineering.

(Arranged in alphabetical order).

C. D. CLAY, 1st Lieut., U. S. A.,
Professor of Military Science.

J. R. JOHNSON, B. M. E.,
Instructor in Shop Work and Drawing.

J. H. KASTLE, PH. D.,
Professor of Chemistry.

J. P. NELSON, C. E., M. E.,
Professor of Civil Engineering and Physics.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

M. L. PENCE, M. S.,
Associate Professor of Civil Engineering.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

J. H. WELLS, B. M. E.,
Assistant Professor of Mechanical Engineering.

JAS. G. WHITE, A. M.,
Professor of Mathematics and Astronomy.

MAIN BUILDING

SCHEDULE OF COURSE IN MECHANICAL ENGINEERING.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2:15-4:45 P. M.
FRESHMAN YEAR.	Military Science.	English.	Plane Geometry.	Algebra.	Wood Working Tools, Mechanical Drawing.		Shop Work in Wood, Bench and Lathe.
	Military Science.	English.	Plane Trigonometry	Mechanical Drawing.	Theory of Pattern Making and Foundry Practice.		Pattern Making. Foundry.
SOPHOMORE YEAR.	Military Science.	Solid Geometry.	Mechanical Drawing.	Elementary Designing.	Physics.		Iron and Steel Forging.
	Military Science.	Analytical Geometry.	Descriptive Geometry.	Elementary Designing.	Physics.		Vise Work in Metal, Machine Work.
JUNIOR YEAR.		Calculus.	Kinematics.	Heat.	Physical Laboratory.	Physical Laboratory.	Machine Design.
		Analytical Mechanics.	Strength of Materials.	Metallurgy.	Chemistry.	Chemical Laboratory.	Chemical Laboratory, Machine Design.
SENIOR YEAR.		Thermodynamics.	History.	Steam Boilers, Transmission of Power.	Valve Gearing.	Theory and Practice of Photography.	Valve and Engine Designing.
		Engine Design.	History and Political Economy.	Dynamometers and Measurement of Power.	Experimental Work; Engine, Boiler, Belt and Materials of Construction Tests.	Expermental Work; Engine, Boiler. Belt and Materials of Construction Tests.	Thesis Work.

Course in Mechanical Engineering.

The training given in this course, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in the Mechanical Engineering world. The practical work extends over a period of two years and includes the most important principles and operations in bench work in wood, wood-turning, pattern-making, foundry work, iron and steel forging, and hand and machine work in metal.

The theoretical work during the first two years consists of a thorough training in English, Chemistry, Mathematics, Physics and Drawing, and during the last two years, the fundamental principles of boiler, machine and engine design are taken up. By a careful solution of practical problems, the student becomes familiar with the process carried on by the operators and designers of successful machine plants.

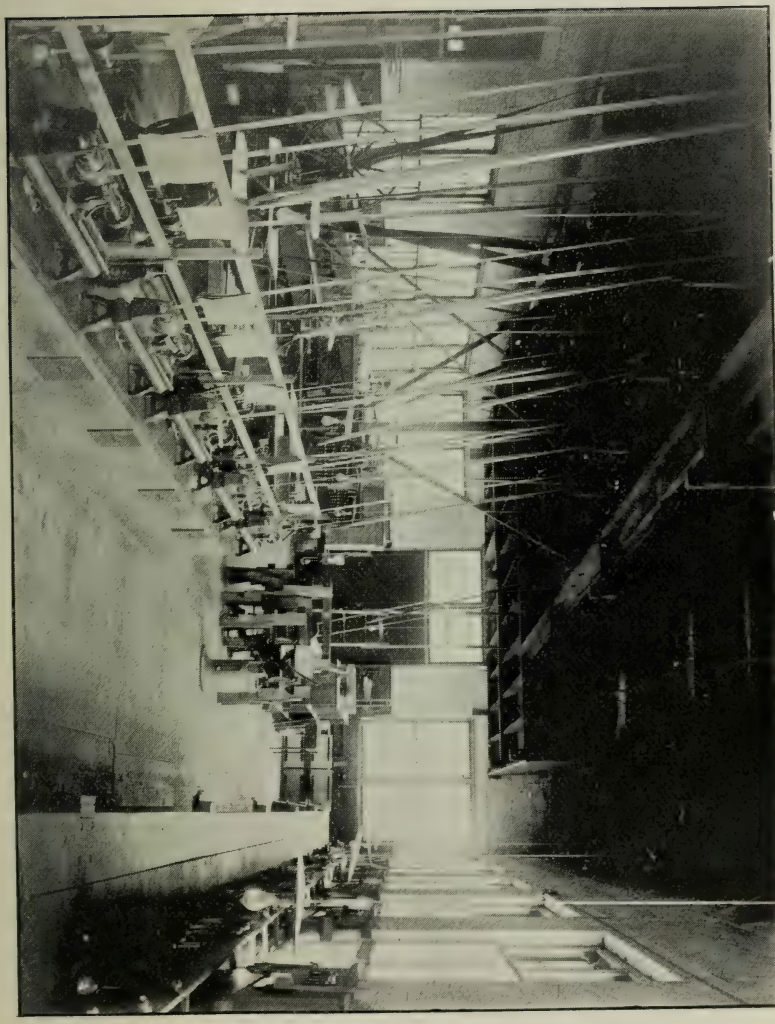
The course in Mechanical Engineering involves three separate lines of work:

1. *Steam engineering*, the object of which is to give that training necessary to fit men to be operators and designers of steam machinery.
2. *A chemical line* intended especially to give that knowledge requisite for the successful operation of iron and steel plants and the analysis of iron, steel, coals and refractory substances.
3. *An electrical*, in which the theory, design, building and operation of dynamos and motors is predominant.

During the Freshman and Sophomore years the work for all students in the Mechanical Engineering Course is identical, but during the Junior and Senior years a student is granted the privilege of electing one of the three lines of work indicated above.

The course of study in Mechanical Engineering extending over a period of four years leads to the Degree B. M. E. (Bachelor of Mechanical Engineering). The advanced Degree of Mechanical Engineer may be obtained by resident students in one year after taking the degree of B. M. E. from the State College of Kentucky or any other institution of equal requirements, having successfully carried on work laid down, passed a satisfactory examination, and presented an acceptable thesis. Advanced degree may also be taken in three years after obtaining the Degree B. M. E., provided the student has been engaged during the period of three years in practical engineering work, passes a satisfactory examination at the College and presents an acceptable thesis.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



Wood Shop.

Freshman Year.

TECHNICAL INSTRUCTION.

Twenty-six weeks, three hours per week.

(*a*). Recitations on the forms of wood-working tools, and the cutting and peculiarities of timber.

(*b*). Lectures on the operation of the various forms of wood-working machinery.

(*c*). Lectures on pattern-making, molding and casting.

MECHANICAL DRAWING.

Twenty-six weeks, six hours a week, and ten weeks, ten hours a week.

This drawing includes free-hand sketches, drawing from copies and model, using parts of machines in the Mechanical Laboratories as models.

SHOP WORK.

Thirty-six weeks, twelve hours a week.

(*a*). Bench work in wood, including exercises in the following operations: planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenter's tools.

(*b*). Wood-turning, involving the various principles of lathe-work in wood.

(*c*). Pattern-making, which gives the student discipline in the construction of patterns for foundry work.

(*d*). Foundry work, including the various operations of molding, core-making, and the melting of iron and brass.

ENGLISH.

Thirty-six weeks, five hours per week.

ALGEBRA.

Seventeen weeks, five hours per week.

GEOMETRY.

Seventeen weeks, five hours per week.

TRIGONOMETRY.

Nineteen weeks, five hours per week.

Sophomore Year.

TECHNICAL INSTRUCTION.

Sixteen weeks, one hour per week.

(*a*). Lectures on the handling of iron and steel in forging, and the methods of tempering and annealing steel.

(*b*). Lectures on modern machine-shop practice.

MECHANICAL DRAWING.

Sixteen weeks, four hours per week; thirty-six weeks, five hours per week.

(*a*). Drawing the parts of machines and complete machines to scale.

(*b*). Exercise in tinting and shading.

SHOP WORK.

Thirty-six weeks, twelve hours per week.

(*a*). Exercise in iron and steel forging.

(*b*). Exercise in vise-work in metal.

(*c*). General machine work, including screw-cutting, drilling, planing, and the milling of iron, brass and steel.

DESCRIPTIVE GEOMETRY.

Nineteen weeks, five hours per week.

PHYSICS.

Thirty-six weeks, five hours per week.

SOLID GEOMETRY.

Seventeen weeks, five hours per week.

ANALYTICAL GEOMETRY.

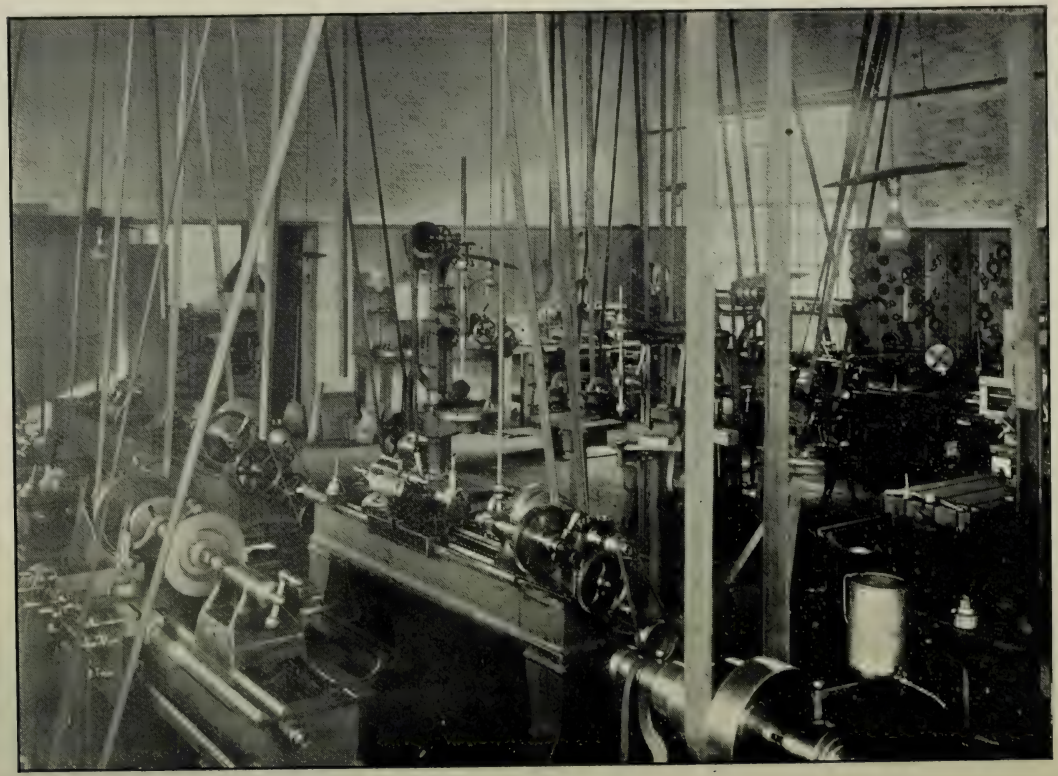
Nineteen weeks, five hours per week.

Junior Year.

KINEMATICS.

Seventeen weeks, five hours per week.

Under this head are studied the velocity ratios in various motions, construction of gears, cams, quick return motions, straight line motions, epicyclic trains, parallel motions, and the manner of designing trains of mechanism.



MACHINE SHOP.

MECHANICAL DRAWING.

Thirty-six weeks, ten hours per week.

The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines used in actual construction in the laboratories.

METALLURGY.

Nineteen weeks, three hours per week.

The above includes the study of fuels and refractory substances, and the process employed in puddling iron and making steel.

CHEMICAL LABORATORY

Thirty-six weeks, five hours per week.

ANALYTICAL MECHANICS.

Nineteen weeks, five hours per week.

STRENGTHS OF MATERIALS.

Nineteen weeks, five hours per week.

HEAT.

Seventeen weeks, five hours per week.

PHYSICAL LABORATORY.

Seventeen weeks, five hours per week.

CHEMISTRY.

Nineteen weeks, five hours per week.

CHEMICAL LABORATORY.

Nineteen weeks, five hours per week.

Senior Year.

THERMODYNAMICS.

Twenty-six weeks, six hours per week.

This work consists of a study of the laws of thermodynamics, thermal capacities, and the application of thermodynamics to the steam engine.

STEAM BOILERS.

Seventeen weeks, five hours per week.

A study of the various commercial steam boilers, consumption of fuel, incrustation, determining the horse power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of power transmsssion.

VALVE GEARING.

Seventeen weeks, five hours per week.

The study of various forms of standard engine valves and methods of designing.

MECHANICAL DRAWING.

Seventeen weeks, ten hours per week.

This consists in working out practical designs of boilers and steam engine valves.

ENGINE AND MACHINE DESIGN.

Fifteen weeks, five hours per week.

A study of the modern methods of designing engines and machines for strength as well as motion.

EXPERIMENTAL ENGINEERING.

Fifteen weeks, ten hours per week.

Includes a study of the Indicator, making engine, boiler, belt, and materials for construction tests.

POLITICAL ECONOMY.

Fifteen weeks, five hours per week.

THEORY AND PRACTICE OF PHOTOGRAPHY.

Seventeen weeks, five hours per week.

HISTORY.

Twenty weeks, five hours per week.

DYNAMOMETERS AND MEASUREMENT OF POWER.

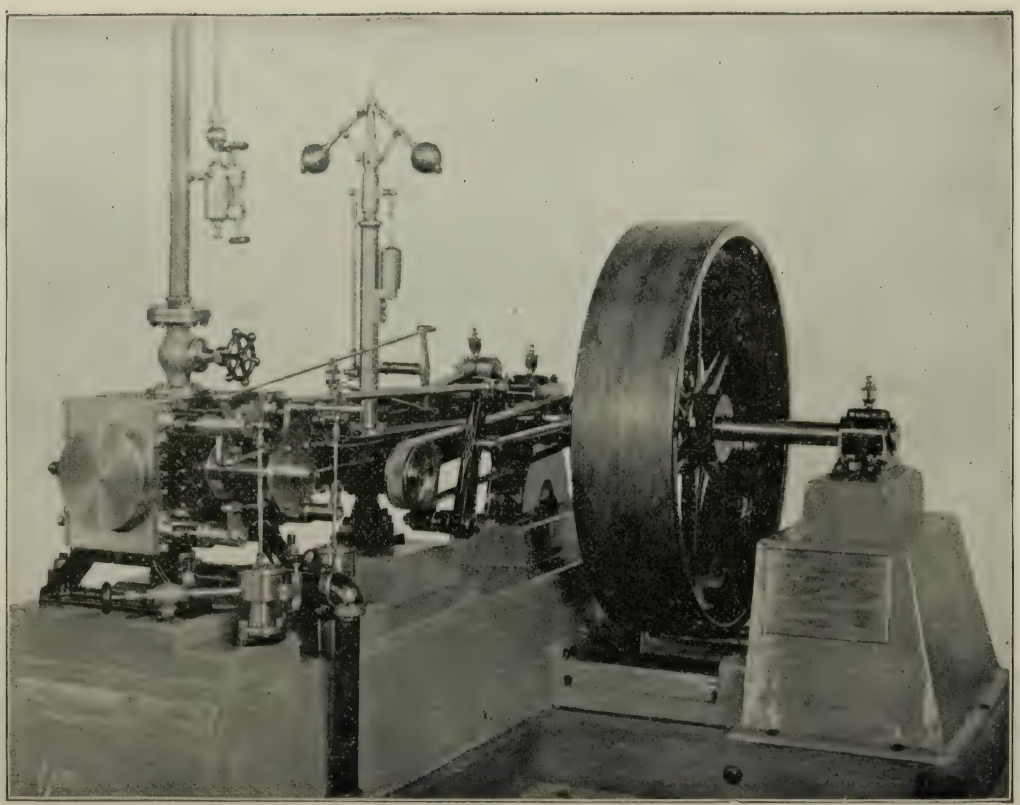
Twelve weeks, five hours per week.

THESIS WORK.

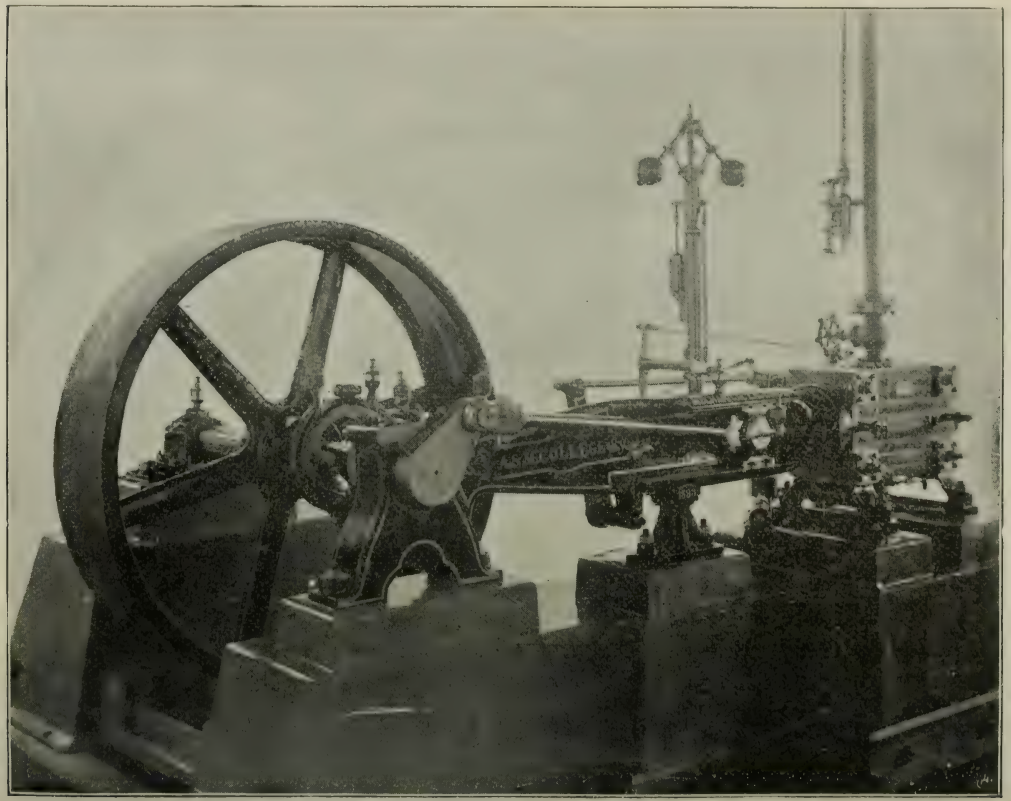
Nineteen weeks, twelve hours per week.

Every student, before he attains the degree of B. M. E., must present a satisfactory thesis on some new design of a machine, or an original investigation.

The greater part of the second term of the Senior Year is given to the preparing of this thesis. The subjects for theses are assigned to students by the Professor of Mechanical Engineering, and the completed theses are kept on fi e with the college records, that they may serve as a reference for future investigators.



Corliss Engine Built by Students of the State College



Corliss Engine Built by Students of the State College.

Courses in Pedagogy.

Faculty of Instruction.

RURIC N. ROARK, A. B., Dean.

(Arranged in alphabetical order).

C. D. CLAY, 1st Lieut., U. S. A.,
Professor of Military Science.

H. GARMAN,
Professor of Zoology and Entomology.

J. H. KASTLE, PH. D.,
Professor of Chemistry.

C. W. MATHEWS, B. S.,
Professor of Botany and Horticulture.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

J. P. NELSON, C. E., M. E.,
Professor of Physics.

JOHN H. NEVILLE, A. M.,
Professor of Latin and Greek.

JOHN W. NEWMAN, B. S.,
Assistant in Department of Pedagogy.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

JAS. G. WHITE, A. M.,
Professor of Mathematics and Astronomy.

SCHEDULE OF PROFESSIONAL COURSE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2–4 P. M.
FRESHMAN YEAR.	Military Science.	English Literature.	Plane Geometry.	Algebra.	Physiology.		Forensics.
	Military Science.	English Literature.	Plane Trigonometry.	Botany.	Physiology.		Forensics.
SOPHOMORE YEAR.	Military Science.	Solid Geometry.	Virgil.	Botany.	Botany.		Forensics.
	Military Science.	Analytical Geometry.	Cicero.	Logic.	Chemistry.		Forensics.
JUNIOR YEAR.		Zoology.	Zoology.		Physics.		Chemical Laboratory.
		Tacitus, Juvenal.	Mineralogy Paleontology.	Educational Psychology	Physics.		Zoology.
SENIOR YEAR.		Horace.	History.	Mental Philosophy.	School Economy, Methods	Astronomy.	Physiography.
		Geology.	History and Political Economy.	Astronomy, Moral Philosophy.	School Economy, History of Education.		

SCHEDULE OF STATE DIPLOMA COURSE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Drills.
ONE YEAR.	Military Science.	English Literature.	Plane Geometry.	Algebra (Adv.).	Latin.	Forensics.
	Military Science.	Physics.	Advanced Arithmetic (Revised).	Psychology.	Latin.	Forensics, Pedagogy.

SCHEDULE OF COUNTY CERTIFICATE COURSE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Drills.
FIVE MON.	Military Science.	Arithmetic, or Grammar.	Geography, or Composition.	Civics, or Orthography.	U. S. History.	Forensics.
TEN WEEKS.	Military Science.	Arithmetic, or Composition	Higher Arithmetic, or Grammar.	Geography, or Physiology.	Civics.	Forensics.
	Military Science.	Ky. History, or Grammar.	Higher Arithmetic, or Composition.	Geography, or Physiology.	U. S. History.	Forensics, Pedagogy.

SCHEDULE OF STATE CERTIFICATE COURSE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Drills.
HALF YEAR (2d Term).	Military Science.	English Literature.	Higher Arithmetic.	Psychology.	Algebra.	Forensics, Pedagogy.

Courses in Pedagogy.

The Teacher must be possessed of three things, in addition to an upright and sterling character. and a healthy body. These three things are: (1) An adequate knowledge of what he proposes to teach; (2) skill in teaching—knowledge of how to teach; (3) some broad and liberal culture, wherewith to illuminate his work and increase its value. These three things it is the business of the Teachers' Training School to give.

1. *An adequate knowledge of the branches to be taught.*—The giving of this knowledge is academic work, primarily. But this academic instruction should be given with the fact constantly in view that "The student will teach as he is taught rather than as he is taught to teach." The instruction in Arithmetic, Physiology, Grammar, etc., is designed to illustrate to the teacher-pupils in the various classes the latest and best methods of teaching these subjects.

2. *Skill in teaching—the knowledge how to teach.*—This can be acquired best by successful practice, but there is a science as well as an art of teaching. Teaching must not be wholly empirical. There are fundamental principles upon which all true teaching rests, and the purpose here is to fix these principles in the minds of the pupils. It is the carrying out of these principles, their successful and practical application, that lifts the work of the teacher to the dignity of a profession. It is the direct inculcation of these principles and the practical drill in their application that distinguish the Teachers' Training School from all other schools. The Teachers' Training School should work in the faith that teaching is the highest profession, and the atmosphere of such a school should be filled with the professional spirit.

Since the principles of the science of education rest on the activities and processes of the growing mind, special attention is given to Educational Psychology. A study of this subject is followed by a thorough drill in School Management and the most rational and effective Educational Methods. The principles of management and methods are constantly presented in their relations to the principles of Psychology Finally, the student is introduced to the history of his profession abroad and at home. The professional course proper, then, consists of Educational Psychology, Management in Education, Method in Education, and the History of Education.

3. *Some broad and liberal cultu e.*—He who knows only the subjects he has to teach and something of how to teach them is not yet a teacher. He must know as much more as he can; must have some knowledge of subjects higher than the branches he will be called on to teach, and different from them. Human knowledge is so interrelated that otherwise he cannot have the copiousness of illustration

necessary to make the simplest and commonest facts as clear as they should be. The relations of facts must be taught—hence the growing need of liberal culture, a widened horizon, for the teacher.

The courses offered in this department are believed to be such as will meet the requirements above set forth, and also satisfy the practical needs of the educational system of the State.

The Professional Course leading to the degree of Ped. B. (Bachelor of Pedagogy), is intended to cultivate the professional spirit, to give a general education, and to fully equip those who complete it for teaching successfully in any grade of public school, or in any academy or college.

The Preparatory Course is identical with the work of the Academy and fits the student to enter the full Professional Course of the Normal Department.

The State Diploma Course is arranged to enable those teachers who have the age and experience required by the school law, and who already hold a State certificate, or are otherwise properly qualified for taking the course, to prepare by one year's work to pass successfully the examination for State Diploma.

The State Certificate Course is open to those who have the legal qualifications of age and experience, and who hold first class, or high grade second class, county certificates, or are otherwise prepared to undertake the work of this course. The aim is to fit such students to take successfully the examination for State certificate. The time required is five months, *beginning in mid-winter.*

The County Certificate Course is designed to prepare teachers for the county schools of the State. Preparations for properly passing the county examination may be made in one year or in five months, according to the previous preparation of the matriculate. By far the larger number of those who take this course enter it after the Holidays. The second term is divided into two terms of ten weeks each, and thus teachers can review all the common branches during the second half year.

It will be seen upon reference to the schedules, pp. 94, 95, that Drill work in Forensics, *i. e.*, in essay writing, speaking and debating, is required in all the normal courses. Ability to express fluently and correctly is of the utmost value to the teacher, and can be gained only by constant practice. The Forensic Drills will occur once a week, with special exercises once or twice each term.

The Pedagogy Drill will occur daily during the last quarter of each year, and is intended to give valuable training in the Science of Teaching.

Course in Science.

Faculty of Instruction.

JAMES G. WHITE, A. M., Dean,
Professor of Mathematics and Astronomy.

(Arranged in alphabetical order).

C. D. CLAY, 1ST. LIEUT., U. S. A.,
Professor of Military Science.

H. GARMAN,
Professor of Zoology and Entomology.

F. M. HELVETI, A. M.,
Professor of German and French Languages and Literature.

J. H. KASTLE, Ph. D.,
Professor of Chemistry.

C. W. MATHEWS, B. S.,
Professor of Agriculture, Horticulture and Botany.

ARTHUR M. MILLER, A. M.,
Professor of Geology and Paleontology.

J. P. NELSON, C. E., M. E.,
Professor of Civil Engineering and Physics.

J. K. PATTERSON, PH. D., President,
Professor of History, Political Economy and Metaphysics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.

JOHN SHACKLEFORD, A. M.,
Professor of English Language and Literature.

This is a General Education Course intended for such students as do not care to specialize closely, but desire a liberal education with a foundation in Mathematics and Language. For those whose bent is toward commercial pursuits, also, it is perhaps the best suited of any of the courses offered by this College. Its distinguishing feature is its Mathematics, which branch of science is studied during two and a half of the four years required to complete the course. It offers one year of English, with the option of an additional year. Of German two years are required. In the study of French a year and a half may be spent, if desired. In addition the course offers sufficient History and Natural Science to round out and complete its educational value.

SCHEDULE OF COURSE IN SCIENCE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.	2–4 P. M.
Freshman Year.	Military Science.	English Literature.	Plane Geometry.	Algebra.	Physiology.		(Friday) Drawing.
	Military Science.	English Literature.	Plane Trigonometry.	Botany.	Physiology.		(Friday) Botany.
Sophomore Year.	Military Science.	Solid Geometry.	English or French.	Botany.	Botany.		
	Military Science.	Analytical Geometry.	English or French.	Logic.	Chemistry.		
Junior Year.		Zoology.	Zoology.	German.	Physics.		Chemical Laboratory.
		Chemistry.	Mineralogy. Paleontology.	German.	Physics.		Zoology.
Senior Year.		French (Optional).	History.	Mental Philosophy.	German.	Astronomy.	Physiography.
		Geology.	History and Political Economy	Astronomy, Moral Philosophy.	German.		

Course in Veterinary Science.

Faculty of Instruction.

(Arranged in alphabetical order).

S. E. BENNETT, D V. M.,
Professor of Veterinary Science.

H. GARMAN,
Professor of Zoology and Entomo'ogy.

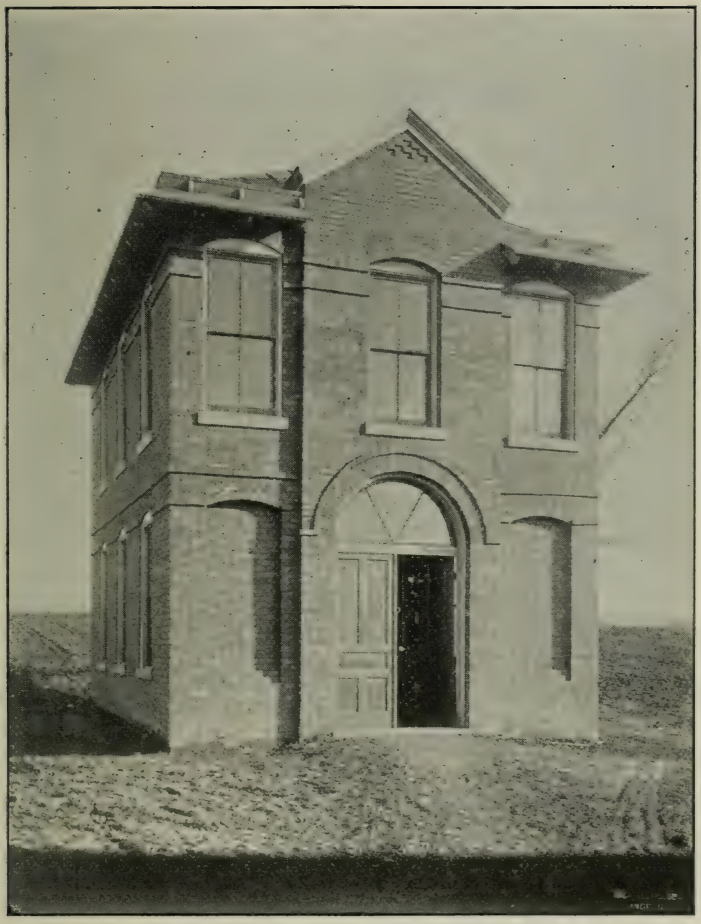
J. H. KASTLE, Ph. D.,
Professor of Chemistry.

C. W. MATHEWS, B. S.,
Professor of Horticulture and Botany.

J. P. NELSON, C. E., M. E.,
Professor of Civil Engineering and Physics.

J. K. PATTERSON, Ph. D., President,
Professor of History, Political Economy and Metaphysics.

J. W. PRYOR, M. D.,
Professor of Anatomy and Physiology.



VETERINARY DISSECTING BUILDING.

SCHEDULE OF COURSE IN VETERINARY MEDICINE.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.		2–4 P. M.
First Year.	Military Science.	Anatomy.	Materia Medica.	Chemistry.	Physiology.		
	Military Science.	Anatomy.	Physics.	Botany.	Physiology.		
Second Year.	Military Science.	Zoology.	Surgery, Horseshoeing	Clinic.	Pathology.		
	Military Science.	Zoology.	Exterior of Horse, Obstetrics.	Clinic.	Pathology.		

Course in Veterinary Science.

The course in Veterinary Medicine has been arranged to extend through two years, during which time thorough instruction is given in all the more important branches of this science. During the first year students take up the study of anatomy and physiology of the domesticated animals. Instruction in these branches is given by means of lectures, recitations and laboratory work. In the laboratory students are required to spend as much time as possible, preparing specimens and dissecting. First year students are also required to take Chemistry, Botany, and Histology. The first of these three being taught by means of lectures, recitations and laboratory work, special attention being given to chemistry in its relations to medicine. Botany is taught during the second term of the first year. Histology is taught throughout the course by means of lectures and laboratory work. Students are required to work with the microscope and become thoroughly familiar with the structure of the various tissues and organs found in the animal body. During the second year the student takes up the more advanced branches relating to Veterinary Science, such as Pathology, Therapeutics, Obstetrics, Horse-shoeing, Surgical diseases and operations, Materia Medica, Stock Breeding, the care of animals, etc. The first two branches are taught by means of lectures. Pathological specimens are shown as the occasion demands. Obstetrics is taught by means of lectures, recitations and demonstrations. Horse shoeing is taught by means of lectures and practical work. The various diseases of the feet are discussed, also faulty formations, and the best form of shoe and treatment to remedy these defects. Surgical diseases and operations, as a branch of veterinary medicine, is taught by means of lectures and illustrations. Instruction is given in preparing and securing of animals for operations, the use of instruments, the treatment of wounds, fractures, luxations, etc. Materia Medica is taught by lectures. During the course of instruction, the various articles of Materia Medica are shown and their actions and uses fully discussed. Stock Breeding is taught by means of lectures, students having unsurpassed advantages in this branch owing to the great number of famous stock farms in the immediate vicinity of the school. During the course of study, lectures are also given upon the diseases of the dog, their causes, prevention and treatment. Throughout the entire Course in Veterinary Medicine, students are required to attend the clinic which is held daily. Students who complete this course satisfactorily receive the degree V. S. (Veterinary Surgeon).

Text-Books.

Anatomy.—Chauveau's, Strangeway, Leisering's Anatomical Plates.
Practice.—Robertson, Williams, Steele, Gresswell, Friedberger and Froehner.
Surgery.—Williams, Fleming.
Shoeing.—Fleming, Hartmann.
Obstetrics.—Fleming, Harms.
Bacteriology.—Fraenkel.
Materia Medica.—Dun, Froehner.
Histology.—Schaefer.
Exterior of Horse.—Gunther, Goubaux and Barrier.

A Special Course of Agricultural Lectures.

All male students are required to attend during part of one school year a course of lectures upon subjects bearing upon Agriculture. The course is intended as a means of disseminating a knowledge of and arousing an interest in Agriculture as an art, and is also designed to meet the wants of students who can remain at the College but a short time, and wish while here to get as much instruction in the line of Agriculture as possible. The course begins in January and terminates in March, a lecture being delivered on Monday, Wednesday and Friday of each week. During the past year the course consisted of thirty lectures on the following subjects: Agricultural Chemistry, Dairying, Economic Entomology, Farm Animals, Fertilizers, Horticulture, Geology as related to Agriculture, Plant Life on the Farm.

Academy (Preparatory).

Faculty of Instruction.

W. K. PATTERSON, Principal.

(Arranged in alphabetical order).

Mrs. LUCY B. BLACKBURN, Assistant.

J. MORTON DAVIS, A. B., B. S., Assistant.

J. LEWIS LOGAN, A. B., Assistant.

V. E. MUNCY, B S, Assistant.

I. Scientific, Agricultural and Engineering Course.

FIRST YEAR.—Arithmetic through percentage, Robinson's Higher; Algebra, Wentworth's Higher to chapter XI; Political and Descriptive Geography, New Complete; History of the United States, Eggleston; English Grammar, Patterson's advanced.

SECOND YEAR.—Arithmetic Completed, Robinson's Higher; Algebra, Wentworth's Higher to chapter XXII; Elementary Physics, Gage; Physical Geography, Maury; History, Anderson's General; Analysis and Composition; Rhetoric.

II. Classical and Normal Course.

FIRST YEAR —Latin Grammar, McCabe's Bingham, Scudder's Gradatim; White's Beginner's Greek Book; Arithmetic through percentage, Robinson's Higher; Algebra, Wentworth's Higher to chapter XI; Political and Descriptive Geography, Butler's Complete; English Grammar, Patterson's Advanced.

SECOND YEAR—Latin Grammar continued, Cæsar (Kelsey), Virgil and Latin Exercises; Greek Grammar continued, Xenophon's Anabasis (Kelsey), Homer's Iliad; Arithmetic completed, Robinson's Higher; Algebra, Wentworth's Higher to chapter XXII; Analysis and Composition; Elementary Physics, Gage; Rhetoric.

SCHEDULE OF ACADEMY (Preparatory) COURSES.
Scientific, Agricultural and Engineering.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:30 to 3:30 P. M
First Year.	Military Science.	Algebra.	Geography.	Arithmetic.	English Grammar.	
	Military Science.	Algebra.	History.	Arithmetic.	English Grammar.	
Second Year.	Military Science.	Arithmetic.	Algebra.	Physical Geography.	Analysis and Composition.	*Shop Work.
	Military Science.	Physics.	Algebra.	History.	Rhetoric.	*Shop Work.

Classical and Normal.

First Year.	Military Science.	Algebra.	Latin Grammar.	Arithmetic.	English Grammar.	
	Military Science.	Algebra.	Latin Grammar.	Arithmetic.	English Grammar.	
Second Year.	Military Science.	Arithmetic.	Algebra.	Cæsar.	†Greek Grammar, Analysis and Composition.	
	Military Science,	Physics.	Algebra.	Virgil.	† Greek Grammar, Rhetoric.	

*For Mechanical Engineering students only. †For Classical students only.

Commercial, Telegraphic and Phonographic Department

(LEXINGTON BUSINESS COLLEGE).

Faculty of Instruction.

C. C. CALHOUN, Principal.

(Arranged in alphabetical order).

E. F. CLARK,
Assistant in Telegraphy.

SHERMAN W. FERRIS,
Assistant in Book-Keeping.

ALBERT McMICHAEL,
Assistant in Penmanship.

M. E. MILLIKEN,
Assistant in Phonography.

W. J. ROSS,
Assistant in Telegraphy.

B. B. JONES,
Traveling Agent.

Courses in Commercial Department.

This Department is self-sustaining, depending upon its tuition fees for its maintainance; but the College has made arrangements with Prof. Calhoun to give instruction without extra charge to all matriculates of the State College who desire to add Book-keeping to the other courses of study provided by the College.

Those students who matriculate in the Commercial, Short-hand and Telegraphy Department will pay the fees charged by that Department for its several courses of study. All such students may have access to any of the classes in any of the other Departments of the College upon payment of two-thirds of the fees charged by the College, and conversely, all matriculates of the College may have access to the classes of Phonography, Type-writing, Telegraphy and Penmanship in the Commercial, Short-hand and Telegraphy Department upon payment of two-thirds of the regular fees charged by that Department.

All the matriculates of this Department are subject to the regulations of the College.

Prof. Calhoun, with his corps of efficient teachers, who have had practical experience in their lines of work, is able to give the very best training in theory and practice.

A very handsome building has recently been completed for this Department, in which the student has facilities for theory and practice second to none.

The importance of a thorough course of training for those who intend to apply themselves to business pursuits can not be overestimated. Practice alone does not suffice. The physician who betakes himself to the healing art without a previous knowledge of anatomy and physiology, and the surveyor who attemps to compute areas and determine boundaries without a knowledge of trigonometry, are on a par with the merely practical book-keeper. A rational art of book-keeping must be based upon a knowledge of the principles which make book-keeping possible. To provide the pupil with an adequate knowledge of scientific principles as well as their application to the keeping of accounts, the Department, whose announcement is now made, desires to address itself.

Phonography and Type-writing are included in this Department. The constantly increasing demand for short-hand in reporting speeches, sermons and the proceedings of public deliberative bodies, in recording evidence given in court, and in the correspondence of business firms, is one of the most marked characteristics of the day. The effectiveness of Phonography has been largely increased by the type-writer, which greatly lessens the labor of transcribing the short-hand notes of the reporter. For these indispensable auxiliaries of a good commercial education, this Department is prepared to provide every facility required.

The numerous demands for telegraph operators has rendered it necessary that telegraphy should be added to this Department, and accordingly it has been well equipped with all modern telegraph instruments of the best make. The students are drilled in handling telegraph business, both railroad and commercial. We have all the standard forms in use on all the best railroads, and the students' daily practice is such as to familiarize them with all the duties of a telegraph operator or agent.

This Department is also provided with a main line of nearly two miles in length, over which considerabl practical work is done. The Department has every facility necessary for giving a thorough and practical training.

Lectures on Commercial Law.

A special course on commercial law has been arranged for, and will be delivered on Saturdays. This course of lectures alone is worth the price of a scholarship to any young man or woman. The lectures are free to students of all departments of the State College who pursue the studies recommended by the lecturer. Others, not pupils of the State College, can have the benefit of them by the payment of five dollars for the entire course.

Diplomas.

All graduates in the entire course of stud are entitled to and receive a full course diploma, signed by the President of the State College and the Governor of the Commonwealth.

Fees.

A complete course involving actual practice and embracing Commercial Law, Penmanship and Book-keeping (merchant's, partnership, compound company, commission, j int stock, banking, lumber, cotton and mining), $55.

A complete course in Short-hand, Spelling, Penmanship and Punctuation, $45.

A course in Type-writing, $10.

A complete course in Penn anship, $4 per month.

A complete course in Telegraphy, Commercial and Railroad Bookkeeping, Penmanship, Spelling, Arithmetic and Commercial Law, $55.

For further information in regard to this Department send for special catalogue, or address C. C. Calhoun, Box 810.

Students in Attendance

During

1893-1894.

Graduates of 1893=94.

AULICK, EDWIN CHESTERFIELD, B. A.
BRADSHAW, GEORGE DICKIE, B. Ped.
BRAND, EDWARD, B. A.
CURTIS, CARLTON COLEMAN, B. S.
FAIG, JOHN THEODORE, B. M. E.
GARRED, ULYSSES ANDERSON, B M. E.
GRIFFING, EMMA ROSETTA, B. S.
HAYS, JAMES MORRISON, B A.
HUGHES, LEONARD SAMUEL, B. S.
JONES, MATTISON BOYD, B. A.
KEISER, BENJAMIN CHRISTOPHER, B. S.
KROESING, LILLIE, B. S.
LAND, LEROY, Vet. Sci.
NEWTON, NATHAN ALEXANDER, B. M. E.
NORMAN, ALBERT CLIFT, B. M. E.
SHELBY, KATHERINE, B. S.
SLEDD, DORA, B. Ped.
TRIGG, WILLIAM CLAY, C. E.
WARNER, HATTIE HOCKER, B. S.

Collegiate.

(The numbers indicate the positions of students intheir courses).

Allen, William Raymond	Class 2	Lexington.
Alford, Smith Edison	Sci. 2	Lexington.
Akers, Thomas Peter	Civ. Eng. 1	Lexington.
Anderson, Henry Clay	Sci. 1	Morganfield.
Appel, J. Charles Beurle	Mech. Eng. Special	London, Eng.
Armstrong, Murty Belle	Ped. 1	Lexington.
Asher, George Matt	Sci. 1.	Wasioto.
Atkins, Antoinette Thornton	Sci. 1	Lexington.
Atkins, Bertie Allene	Sci. 2	Lexington.
Atkins, Mary Lyons	Sci. 3	Lexington.
Aulick, Edwin Chesterfield	Class. 4	Morgan.
Bannister, John Kirtley	Sci. 1	Sherman.
Barber, Lanus Spurgeon	Sci. 3.	Ocala. Fla.
Beardsley, Henry Shedd	Sci. 1	Kansas City, Mo.
Bell, Emma Scott	Sci. 1	Lexington.
Bledsoe, Mary Sue	Class. 2	LaFayette, Ala.
Blessing, George Frederick	Mech. Eng. 1	Carrollton.
Bowman, Virginia	Special	Lexington.
Bradshaw, George Dickie	Ped. 4	Franklin.
Brand, Edward	Class. 4	Broadwell
Brock, George Green	Sci. 1	Bush's Store.
Brown, Margaret Wickliff	Special	Lexington.
Bryan, John Irvin	Mech. Eng. 3	Lexington.
Bush, Henry Skillman	Sci. 3	Lexington.
Caden, Alice Beatrice	Special	Lexington.
Calvert, William Jeptha	Special	Lexington.
Carroll, Mary Joseph	Ped 1	Lexington.
Cary, George Burgess	Mech. Eng. 1	Louisa.
Carnahan, James William	Class. 2	Manchester.
Carrier, Fannie Bruce	Special	Lexington.
Carter, Cli ton Carroll	Sci. 2	Avon.
Case, Dan el Morris	Mech. Eng 2	Lexington.
Cassidy, Elizabeth	Sci. 1	Lexington.
Clarke, Mary Eva	Sci. 1	Lexington.
Cowherd, Robert Lee	Mech. Eng. 3	Campbellsville.
Cox, William Montgomery	Class. 2	Boxville.
Curtis, Carlton Coleman	Sci. 4	Greendale.
Davidson, Mar on Wallace	Ped. 1	Springfield, La.
Davis, Horace Newton	Sci. 1	Lexington.
Dean, Thomas Roland	Class. 2	Little Hickman.
DeBow, Samuel Carruthers	Mech. Eng. 1	Hickman.

Didlake, Mary LeGrande	Sci. 3	Lexington.
Donaldson, Oscar	Civ. Eng 1	Sharpsburg.
Downing, Joseph Milton	Mech. Eng 3	Lexington.
Duck, Berkley Wilson	Sci. 1	Lexington.
Duck, Alice	Sci. 2	Lexington.
Dudley, Clara Miller	Special	Lexington.
Duncan, William Adolphus	Mech. Eng. 1	Franklin.
Dunlap, Fannie P. ndleton	Ped. 1	Independence.
Dunlap, John Jennings	Class. 2	Independence.
Eubank, Leroy	Agr. 1	Shawhan.
Faig, John Theodore	Mech. Eng. 4	Lexington.
Falconer, John Rutherford	Class. 2	Pisgah.
Faris, Samuel Reed	Mech. Eng. 1	Lexington.
Faulkner, John Vick	Civ. Eng. 2	Hampton.
Fossitt, George Lew s	Class. 1	Carntown.
Foster, Nettie Belle	Sci. 3	Lexington.
Frazer, Jos. Whitney Christie	Sci. 2.	Lexington.
Garred, Ulysses Anderson	Mech. Eng. 4	Louisa.
Geary, John Thomas	Sci 1	Lexington.
Greer, Clarence Worth	Ped. 1	Glasgow.
Griffing, Emma Rosetta	Sci. 4	Lexington.
Gunn, Thomas	Special	Lexington.
Gunn, Clara Bro k	Sci. 1	Lexington.
Haley, John Thomas	Sci. 1	Lexington.
Hammock, William David	Sci. 1	Cane Creek.
Harrison, Winn Gunn	Sci 1	Lexington.
Hays, James Morrison	Class. 4	Barboursville.
Henry, Guy Ernest	Civ. Eng. 2	Slaughtersville.
Henry, Jack Jackson	Civ. Eng. 2	Slaughtersville.
Hicks, Arthur Lee	Ped. 1	Danleyton.
Hill, Herbert Hudson	Special	Andover, Mass.
Hobdy, Edgar Jones	Sci. 2	Franklin.
Hogan, Overton Smith	Sci. 1	Dry Ridge.
Hughes, Leonard Samuel	Sci. 4	Frankfort.
Humphreys, Ambrose Wesley	Sci. 1	Middleburgh.
Hunter, William Mason	Special	Clay City.
Huston, Mark Elliott	Class. 2	Taylorsville.
Jolly, James Brady	Ped. 1	Germantown.
Jones, Mattison Boyd	Class. 4	Tuttle.
Keiser, Benj. Christopher	Sci. 4	Lexington.
Kelly, Thomas Conway	Mech. Eng. 1	Georgetown.
Kerrick, Felix	Class. 2	Calhoun.
King, Elizabeth Whittington	Class. 2	Lexington.
Knapp, Clinton Beacham	Class. 1	Lexington
Kroesing, Lillie	Sci. 4	Lexingt n.
Land, Leroy	Vet. 4	Lexington.

Lew's, Thomas Stone .....Class. 2.....Taylorsville.
Lyle, Robert Taylor .....Mech. Eng. 2 ....Lexington.
Lyle, Joel Irvin.....Mech. Eng. 2 ....Lexington.
May, Anna Shawhan.....Special.....Lexington.
Millard, Richard Montgomery. Ped. 4..... ..Salyersville.
Mills, Edward Orson.....Ped. Special.....Kenton.
Moore, Robert Leland.....Agr. 1.... .....Lexington.
Moore, Joseph Warnock.....Civ. Eng. 1.....Lexington.
Morgan, Frederick Dexter...Vet. 3.....Walnut Hills.
Morgan, George Matt.. ....Sci. 1.....Lexington.
Morris, Fay Crawford.....Class. 1. .....Lexington.
Murrill, Paul Ingold.....Sci. 3.....Hickory, N. C.
McCann, Mary Eliza.....Special.....Muir.
McCauliffe, Mary Catherine..Sci. 3.....Lexington.
McClure, Albert.....Civ. Eng. 1 .....Humphrey.
McConathy, James Asa.....Sci. 2..... Lexington.
McDowell, Madeline.....Special. .....Lexington.
McElroy, Courtney Watts....Ped. 1.. .....Morgansfield.
McHargue, Barbara Sue.....Sci. 2.....Boreing.
Newman, Roberta.....Ped. 2.....Muir.
Newton, Nathan Alexander..Mech. Eng. 4 ....Lexington.
Noon, Nellie... .....Ped. 1 .....Lexington.
Norman, Albert Clift.....Mech. Eng. 4 ....Uniontown.
Oots, Nina Pearl..... . Sci. 4.....Lexington.
Orman, Henry.....Mech. Eng. 2 ....Stanford.
Powell, Luke,..... ...Agr. 2..... Ashland.
Reynolds, Nellie Anna.....Sci. 3.....Lexington.
Roberts, Hillery Bryan.....Sci. 2.....Lexington.
Scott, William Campbell.....Sci. 2..... .....Lexington.
Scott, John.....Class. 1.....Lexington.
Searcy, Lula.....Ped. 1.....Lexington.
Shaw, Clara.....Sci. 2.....Lexington.
Shelby, Thomas Hart .....Class. 2 .....Lexington.
Shelby, Katherine.....Sci. 4.....Lexington.
Simrall, Sara Graham .....Special .....Lexington.
Sledd, Dora.....Ped. 4.....Lexington.
Smedley, Albert.....Class. 1 .....Fort Spring.
Speyer, Clarence. .....Sci. 1..... .Lexington.
Stoll, Richard Charles.....Class. 3 .....Lexington.
Swango, John Morton .....Frankfort.
Trigg, John Henry.....Sci. 2 .....New Columbus.
Trigg, William Clay.....Civ. Eng. 4 .....New Columbus.
Troupe, Emma Blanche.....Ped. 1.....Lexington.
Turner, Job Darben.....Ped. Special.....Minnie.
VanMeter, Benj. Franklin....Sci. 2.....Lexington.

Walter, Luther Mason	Ped. 1	Blaine.
Ward, Paul Shipman	Civ. Eng. 3	Cynthiana.
Ward, Edward Henry	Special	Lexington.
Warner, Hattie Hocker	Sci. 4	Lexington.
Warner, Logan Hocker	Sci. 1	Lexington.
Warren, Marcia Callie	Sci. 1	Lexington.
Warren, Elizabeth Martha	Sci. 1	Lexington.
Warren, Henry Thompson	Sci. 2	Donerail.
Watts, Julia Zura	Ped. Special	Walnut Hills.
Weaver, Rufus Lee	Sci. 3	Frazer.
White, Martha Ripperdan	Sci. 1	Lexington.
Williams, Winton	Ped. 1	Black's Ferry.
Wilmott, John Webb	Class. 3	Lexington.
Wilson, Ida Granger	Ped. 1	Lexington.
Withers, Raymond	Sci. 1	Sylvan Dale.
Woods, John Joseph	Class. 1	Cynthiana.
Woods, John Wesley	Class. 1	Olioville.

Pedagogy.

(The studies of the following matriculates of the Department of Pedagogy were limited to subjects required for obtaining certificates to teach in the common schools).

Adams, Dewitt	Shermanville.
Akers, James William	Louisa.
Allen, Nellie	Lexington.
Anderson, Mattie	Mt. Sterling.
Barnette, Thomas	Chaplin.
Bennett, Nora	Sacramento.
Bennett, Charles Wesley	Sacramento.
Burch, Guy Earlscourt	Derby, Ind.
Boyd, Edward Claiborne	Spring Hill.
Bishop, Ulysses Simpson Grant	Teges.
Butner, Ellen	Wildie.
Boston, Bessie	Louisville.
Bush, Eliza	Elkin.
Bush, Carrie Lee	Waco.
Christian, Mattie Jane	Lexington.
Chambers, Ida May	Beelerton.
Chappell, James Keene	Center Point.
Curtis, Seth Thomas	Piqua.
Cole, Lewis Francis	Eversole.
Combs, Mary Hattie	Pebworth.
Curtis, George Washington	McKinney.
Davis, John Wilson	Marrowbone.

David, Clara.....Lexington.
Diamond, Edgar Bascom.....Madge.
Dossett, Rupert Osmond.....Kansas.
Dye, Henry Clay.....Ansel.
Evans, Jennie Belle.....Panola.
Fain, Larkin.....Mt. Lebanon.
Farmer, Leander.....Elihu.
Farris, Lelia McCann.....Nealton.
Finney, Beatrice.....Buchanan.
Fitzhugh, Lucy Stuart.....Lexington.
Gaines, Walter Boyd.....Rockdale.
Glenn, Anna Corinne.....Georgetown.
Goggin, Mary Lewis.....Somerset.
Hancock, Mabel.....Elmville.
Hancock, Gustavus Adolphus.....Elmville.
Harrison, Katie Alice.....Lexington.
Henderson, Willie.....Zion
Hicks, Alta Zera.....Waynesburgh.
Huff, Henry Frank Findley.....Confluence.
Hutsell, Helen Resor.....Lexington.
Jackson, John Hunt.....New Columbus.
Jones, Thomas Martin.....Mullis.
Kincheloe Thurman Thomas.....Sacramento.
Knox, Melven Lawrence.....See.
Lawhorn, Jesse Sherman.....Yosemite.
Lassiter, William Albert.....Hico.
Lewis, Ethel.....Muldraugh.
Lochrey, Fountain Albert.....Sacramento.
Literal, James Milton.....Russell.
Lowrey, Janie.....Troy.
Marlow, Kittie Jane.....Plains.
Metcalf, Lettie Pickett.....Brooksville.
Mayfield, Mary.....Pulaski.
Mayfield, Ella.....Pulaski.
Marshall, Martin Luther.....New Columbus.
Mitchell, Maggie Adell.....Richmond.
Minter, Fannie Jane.....Greenhall.
Morrow, Joseph.....Rankin.
Moberly, Etta Broadus.....Frankfort.
Muncy, Willie Davis.....Louisa.
Nelson, Albert Ross.....Williamsburg.
Nichols, Ellis William.....Load.
Nichols, Washington Fletcher.....Clarkson.
Owens, Luther Ellen.....Somerset.
Peterson, Charles Everett.....Morning Glory.

Phelps, Commodore Vanderbilt.....Stowers.
Price Mona Belle.....Brandenburgh.
Profitt, Ira.....Patsey.
Ray, Samuel Bransford Douglas.....Tompkinsville.
Reganstine, Ellsworth.....McKenzie.
Reid, Ethel.....Lexington.
Reid, Maud Bell.....Lewisburg.
Rouse, Hettie.....Lexington.
See, Pearl.....See.
Shacklett, Warner John.....Ekron.
Smither, Lula.....Monterey.
Snodgress, Frederick Augustus.....Uniontown.
Stamper, Minnie.....Lusby's Mills.
Stivers, Lena Rivers.....Waco.
Stevinson, Mary Jane.....Hedges.
Stevinson, Nancy.....Hedges.
Steely, John Sherman.....Williamsburg.
Struve, Maggie.....Mt. Olivet.
Taggart, David Poole.....Greenville.
Todd, Luther.....Speedville.
Truesdell, Aureana.....Covedale.
Vaughan, William Jamison.....Louisa.
Walker, Hallie.....Richmond.
Waltrip, Powhatan Mallory.....Beech Grove.
Watkins, John Jefferson.....Morganfield.
Waugh, John Milton.....Olioville.
Ware, Lena.....Levee.
Webb, Sophronia.....Glenwood.
Wesley, Virgil Jasper.....Bethel Ridge.
Wilson, Aquilla Paine.....St. Helens.
Wilson, James Harvey.....Cubbage.

Academy (Preparatory).

(The numbers indicate the positions of students in their courses).

Anderson, William Wyatt 1.....Manchester.
Ballard, Richard Huston 1.....Bryantsville.
Bascom, Charles Albert 2.....Sharpsburg.
Beazley, Luther Branhan 1.....Hyattsville.
Blackford, Matta 2.....Lexington.
Bonnyman, James Joseph 2.....Lexington.
Booth, Anna Cornelia 1.....Taylorsville.
Boswell, Malcolm Temple 1.....Leesburg.

Brock, LaFayette Breckinridge 2.....Lexington.
Bronaugh, William Logan 2.....Lexington.
Brooks, Elibabeth Lee 2.....Lexington.
Bryan, Volney Hewitt 2.....Lexington.
Bullock, Frederick Dabney 2.....Lexington.
Burton, Thomas Creed 2 .....Whalen.
Bush, George Lewis 2 .....Lexington.
Cahill, William James David 2.....Lexington.
Cassell, Anna Bell 1.....Lexington.
Clarke, Asahel Rawlings 2.....Falmouth.
Cleveland, Ernest Raymond 1.....Keene.
Colbert, John 2 .....Lexington.
Collier, William Henry 1.....Hooktown.
Combs, Davelle 2.....Lexington.
Cooley, Frank 2.....Williamsburg.
Cooper, Joseph Evans 1..... Greendale.
Copeland, Alexander Chisholm 2.....Clay City.
Copeland, George Forbes 2 .....Clay City.
Coyle, John Caldwell 2.....Canton.
Cunningham, Alfred 2 .....Cadiz
Curtis, Clintie 2..... Greendale.
Curtis, Corinne Lyon 1 .....Greendale.
Darnell, Caleb 1.....Long Lick.
Davis, Forrest William 1.....Lexington.
Davis, John Thomas 2.....Shelbyville.
Davis, Walter Hendricks 2.....Jacksonville.
Davis, William Tilden 2 .....Jacksonville.
Denny, Van Hamilton 2.....Lexington.
Dudley, Benjamin William 1 .....Lexington.
Douglas, Frankie Belle 2.....Lexington.
Duke, Mattie Eva 2.....Beelerton.
Downing, Kittie 2.....Lexington.
Durham, John Hayes 2.....Artemus.
Elwell, John William 1.....Lexington.
Fairchild, Jackson Dillion 1.....Lexington.
Fairchild, Margaret 1 .....Lexington.
Farley, Frank Hopkins 2 .....Flat Lick.
Foley, John Jerome 1.....Hanley.
Gaitskill, John William 1.....Lexington.
Gardner, Harvey Showers 2.....Leitchfield.
Gardner, John Abraham 1.....Leitchfield.
Garnet, William Wilson 2.....Cave City.
Gilbert, James Samuel 2 .....Mt. Eden.
Gist, Marium Stirman 2.....New Castle.
Gooch, John Latton 1.....Versailles.
Gunn, Lucien Brook 2.....Lexington.

Halcomb, George William 2.....Franklin.
Halcomb, Thomas Allen 1.....Franklin.
Hallam, Mortimer 2.....Paris.
Hamilton, Robert Browning 2.....Lexington.
Hamilton, Thomas Smith 2.....Lexington.
Hannibal, Michael Andrew 1.....Lexington.
Haydon, Alexander Gunn 1.....Keene.
Haynes, Claude 1.....Lexington.
Hill, Mathew Edgar 1.....Lexington.
Hilliard, Hercules Clay 1.....Clinton.
Hostetter, Jacob Henry 1.....Lexington.
Jochum, Robert Henry 1.....Lexington.
Johnson, John Bockover 2.....Lexington.
Johnson, Joseph 1.....Chavies.
Johnson, John Pelham 1.....Lexington.
Kirk, Edward Walden 1.....Inez.
Kelly, William Smith 2.....Georgetown.
King, Margaret Isadora 2.....Lexington.
Kirk, Millard Tivis 2.....Inez.
Knapp, Mattie Winifred 2.....Lexington.
Lancaster, William Kinzea 1.....Lexington.
Lane, Frank William 1.....Lexington.
Lavin, Sallie Ambrosia 1.....Walnut Hills.
Lievitz, Herman Bernard 1.....Lexington.
Llewllyn, Mary Hitchman 2.....Lexington.
Lucas, Ida West 2.....Lexington.
Lyne, Frank Farra 2.....Brannon.
McCain, Linn Hemingway 1.....Bedford.
McCawley, James Taylor 1.....Morganfield.
McConnell, John 2.....Versailles.
McDaniel, James Mott 2.....State Line.
McElroy, Paul Isaac 1.....Lexington.
McKenna, Charles William 2.....Lexington.
Martin, Thomas Ellis 2.....Minnie.
Miller, Minnie Blades 1.....Lexington.
Mitchell, Lawrence Jasper 1.....East Hickman.
Muir, George Wallace 2.....Lexington.
Muir, Nellie Hawkins 2.....Lexington.
Mulligan, James Jackson 1.....Lexiugton.
Nelson, Robert 2.....Lexington.
Nichols, Marylark 2.....Lexington.
Northcut, Elgin 1.....Judy.
Nunley, William Daniel 2.....Cannonsburgh.
Oldham, Marie Chenault 1.....Lexington.
Oliver, Mathew Rabbath 1.....Lexington.

Overton, William Dabney 1.....Frankfort.
Pope, Edward Lee 2.....Barboursville.
Rankin, Adam Isaac 1.....Rankin.
Reisch, Charles 1.....Louisville.
Rice, Halleck 1.....Salyersville.
Richmond, Carrie Francis 2.....Lexington.
Risk, William Theodore 1.....Midway.
Roberts, William Rankin 1.....Brannon.
Rogers, Clarence 1.....Leitchfield.
Scherffius, William Henry 1.....Linnville.
Scholtz, Theodore Walter 1.....Louisville.
Scott, Henry Martin Skillman 2.....Lexington.
Shelbourne, Arthur Lee 2.....Bardwell.
Simpson, Eugene Erwin 1.....Lexington.
Simpson, John Morrison Clay 1.....Lexington.
Smith, Etta 2.....Warnock.
Smith, Louis Ripple 1.....Hickory, N. C.
Spears, Robert Cave 2.....Spears.
Spencer, Margaret Cassell 1.....Lexington.
Stephens, Benjamin Franklin 1.....Martinsburg.
Stevens, Edna Earl 2.....Walnut Hills.
Stephens, Edgar 1.....Martinsburg.
Stevens, Jessie 2.....Walnut Hills.
Stoll, John George 2.....Lexington.
Tarr, James Bennett 1.....Paris.
Terry, Lila Beatrice 2.....Paris.
Truesdell, Herbert Hoffman 1.....Alexandria.
Turner, Charles Foushee 1.....Lexington.
Vandever, John Green 1.....Rankin.
VanMeter, Benjamin Stonestreet 2.....Christiansburg.
Viley, Willa 2.....Lexington.
Vinson, John Robert 1.....Cadiz.
Walker, Edward Craig 1.....Anthoston.
Wa'sh, Robert Christie 1.....Lexington.
Warner, Evan Taylor 1.....Lexington.
Warnock, Ernest Edward 1.....Warnock.
Warren, Richard Evans 1.....Donerail.
Wickliffe, Charles Henry 2.....Lexington.
Woods, William Martin 1.....Cynthiana.
Woolley, Charles Wickliffe 1.....Lexington.
Wootton, William Beverly 1.....Oak Grove.
Young, Lucien Frank 1.....Liberty.

Business College.

Allen, S. H. ..... Lexington.
Allen, W. H. ..... Lexington.
Anderson, William B. ..... Scottville.
Armstrong, Julia. ..... Lexington.
Ashurst, Lula. ..... Paris.
Axline, Herbert. ..... Nicholasville.
Bacon, Franklin ..... Lexington.
Ballard, Elijah Franklin ..... Ballardsville.
Bales, Charles Clinton ..... Rose Hill, Va.
Baker, Kate M. ..... Lexington.
Barlow, Henry Z. ..... Barlow, Miss.
Barr, Robt. M. ..... Lexington.
Bates, Mary ..... Richmond.
Bell, Lawrence E. ..... Lexington.
Bell, John Lambert. ..... Lexington.
Beckner, Lucien M ..... Winchester.
Beverly, Frank Camilus. ..... Big Stone Gap.
Boone, Robert E. ..... Hedges.
Boggess, E. H. ..... Greenville.
Bomer, Ote G. ..... Brownsville, Tenn.
Bourne, M. H. ..... Owenton.
Breckinridge, Sophonisba Preston. ..... Lexington.
Bradley, Samuel J. ..... Winchester.
Brown, M. H. ..... Lexington.
Brown, J. W. ..... Liberty.
Brown, Frank Human. ..... Hamilton, N. C.
Bullock. Sallie O. ..... Lexington.
Burke, Dorothy W. ..... Versailles.
Caden, Andrew B. ..... Lexington.
Calhoun, Lelia Zerilda ..... Owensboro.
Cardwell, John Cornelius. ..... Earls.
Cassell, W. H. Jr. ..... Lexington.
Cavens, Sallie. ..... Lexington.
Clark, Katy ..... Lexington.
Clugston, Leslie. ..... Lexington.
Cockrill, C. J. ..... Jetts Creek.
Congleton, Robert F. ..... Dundee.
Coons, Annie. ..... Lexington.
Coons, Emma. ..... Lexington.
Cooper, James Clay ..... Mt. Sterling.
Cox, Walter Chilton. ..... West Liberty.
Crabtree, Robert Rowan ..... Lexington.
Crawford, Arthur. ..... Louisiana, La.
Crawford, Frank. ..... Rob Ray, Ind.

Croxton, R. H.....Lexington.
Crow, George.....Nicholasville.
Crudup, Thomas H.....Kittrell, N. C.
Curran, Thomas B.....Lexington.
Day, G. B.....Dundee.
Delaney, Olie B.....Hedges.
Demaree, William Yocum.....Louisville.
Dickson, Charles B.....Richmond.
Donlan, Maggie Cecilia.....Lexington.
Douthat, Henry Gilman.....Wilton, Va.
Easley, Gilbert H.....Shelbyville.
Embry, Jerry R.....Lexington.
Erion, Ida.....Germantown.
Ervin, D. M.....Gainesville.
Farra, O. H.....Lexington.
Ferney, Katie M.....Lexington.
Farrel, H. F.....Lexington.
Fizer, H. S.....Lexington.
Fitzgerald, Josie.....Lexington.
Foster, Fred Dolan.....Lexington.
Frost, W. S.....Lexington.
Gay, Lizzie G.....Lexington.
Gaines, Foster B.....Stamping Ground.
Gibson, P. B.....Ironton, Ohio.
Golden Mildred.....Winchester.
Goodwin, Thomas.....Chilesburg.
Greenwood, Harry M.....Lexington.
Goode, Alvin C.....Lexington.
Grosclose, George Grose.....Marion, Va.
Grosclose, Frank Alexander.....Burks Garden, Va.
Gunn, Thomas.....Lexington.
Hair, Sallie R.....Lexington.
Hall, William M.....Bowen.
Hampton, Tyler.....Russell Cave.
Hays, F. M.....Lexington.
Hibbitts, John C.....Bethel, Ohio.
Hisle, Lee.....Lexington.
Hisle, Edward.....Lexington.
Hisle, Clay.....Lexington.
Hostetter, Whitney M.....Lexington.
Hudson, Ernest.....Lexington.
Hudson, Silas J.....New Columbus.
Hughes, Elsie.....New Columbus.
Hukle, Jessie.....Lexington.
Hunt, Frank F.....Lexington.
Hutchinson, Mattie D.....Lexington.

Hutchinson, Hattie.....Lexington.
Irvine, Abram Lisle.....Richmond.
Jameson, Ora B.....Stamping Ground.
Jones, Hattie D.....Lexington.
Juett, Carl Hendrix .....Georgetown.
Kays, Wallace Granville.....Lexington.
Keller, Thekla.....Lexington.
Kenney, Frank P.....Paris.
Kidd, Sallie M.....Lexington.
King, B. E.....Frost.
King, J. V.....Frost.
Klein, R.....Lexington.
Klein, L. A.....Lexington.
Klein, A. F.....Lexington.
Klein, J. M.....Lexington.
Lambert, Len.....Lexington.
Lancaster, Albert C .....Lexington.
Lancaster, James.....Corinth.
Latham, Charles Francis.....Donerail.
Lewis, Samuel Higgins.....Lexington.
Logan, Charles Alexander.....Shelbyville.
Lucas, Mary E.....Lexington.
Lyttle, Mamie.....Lexington.
Locke, A. F.....Charlotte, Mich.
Mack, John.....Dundee.
Martin, Eugene Dennis.....Earles.
Matthews, Robert.....Lexington.
Maupin, Herman Harp.....Lexington.
Maxwell, Mamie.....Lexington.
McCauliffe, Mary C.....Lexington.
McClanahan, George.....Berlin.
McCormick, Joseph .....Lexington.
McFarlin, John William.....Franklin.
McKenney, Annie.....Lexington.
McLanshen, George Wiley.....Berlin.
McNamara, John Richard.....Torrent.
McVey, Horace C.....Lexington
Melton, Elijah Spencer.....Pool's Mill.
Miller, Annie.....Lexington.
Moffitt, William A.....Sedalia.
Minor, Hugh.....Eastham, Va.
Moore, William D.....Mt. Vernon, Ind.
Moore, Elijah Coffey.....Liberty.
Moore, Bennett Franklin.....Wilson, N. C.
Moore, Clarence David.....Kittrell, N. C.
Moore, D. B.....Harrodsburg.

Morrow, Wilson Boyd.....Somerset.
Morton, Bettie Frederic.....Lexington.
Mullen, Edwin Ernest.....Lexington.
Murphy, Lizzie.....Lexington.
Murphy, Phillip H.....Newtown.
Montgomery, Ida.....Lexington.
Nelson, Thomas R.....Lexington.
Nichols, Daniel A.....Lexington.
Northcutt, R. L.....Williamstown.
Northcutt, W. A.....Williamstown.
Nightingale, Samuel W.....Doylestown, Pa.
O'Kelly, John Graham.....Ashwood, La.
O'Toole, Katy.....Lexington.
O'Toole, Mary.....Lexington.
Overton, William Dabney.....Frankfort.
Page, William Seabury.....Lexington.
Parks, Samuel.....Walnut Hill.
Parks, J. M.....Lexington.
Payne, Margaret Howard.....Lexington.
Patterson, Samuel.....Ft. Springs.
Patterson, Thomas C.....Ft. Springs.
Price, William.....Winchester.
Proctor, William G.....Quail.
Proctor, W.....Lexington.
Pythian, Lucy Catharine.....Frankfort.
Prows, J.....Lexington.
Ramsey, Harry Porter.....Stanford.
Raborn, R. L.....Kidville.
Ready, John.....Lexington.
Reader, Gertrude.....Georgetown.
Redd, Margaret Warren.....Lexington.
Redmon, Harry.....Millersburg.
Riley, Dexter W.....Berlin.
Riley, Samuel Gayle.....Georgetown.
Ripy, Oliver P.....Denton, Tex.
Rogers, Charles LaFayette.....London.
Rupard, Rosa.....Winchester.
Saddler, Francis Everet.....Hawsville.
Safforans, Elizabeth.....Lexington.
Seaman, A. M.....Lexington.
Sebree, Owen C.....New Columbus.
Schooler, Jones.....Pleasant Home.
Sickles, W. L.....Lexington.
Skidmore, Daniel.....Bowen.
Sloan, Isaac Guthrie.....Lexington.
Smith, Mattie Lee.....Lexington.

Sousley, Edwin.....Lexington.
Sprague, Ross.....Grants Lick.
Staples, Charles R.....Lexington.
Stivers, Jerome Ernest.....Walnut Hill.
Stanley, Charley.....Lexington.
Shropshire, Rosseau.....Georgetown.
Thomasson, Lina.....Lexington.
Thompson, George Edward,.....Columbia, Mo.
Thornton, Mattie Davidson.....Lexington.
Thurman, Alma.....Lexington.
Tully, Stockton B.....Springdale.
Turner, John W.....New Columbus.
Umstead, Charles Admiral.....Lexington.
Vicroy, Charles.....Maysville.
Vicroy, William.....Maysville.
Ward, Sallie J.....Richmond.
Ward, Charles F.....Lexington.
Walker, Robert B.....Lexington.
Walker, Samuel Pearce.....Lexington.
Warren, George Walter.....Lexington.
Warren Gillois.....Mills.
Watson, James.....Lexington.
Wells, Ollie.....Richmond.
Wells, Jeanette.....Lexington.
West, Georgie B.....Lexington.
Welsh, W. S.....Lexington.
Wheeler, Inez.....Lexington.
White, William.....Athens.
Wiggins, C. P.....Piqua.
Williamson, Raymond.....Georgetown.
Wilson, James Alexander.....Hickory, N. C.
Wilson, Fred L.....Lexington.
Wilson, Arthur.....Lexington.
Williams, Calvert.....Lexington.
Wilson, Isaac M.....Winchester.
Woodard, William Thos. Jr.....Lexington.
Woodward, Charles Harrison.....Jessamine.
Yeager, Churchill Fred.....Marksberry.
Young, Len.....South Elkhorn.
Youngling, Hubert.....Lexington.
Ziegler, Charles E.....Winchester.
Zimmerman, Daniel Leonard.....Lexington.

Calendar for 1894-95.

Entrance Examinations begin	Monday, Sep. 10, 1894.
First Term begins	Wednesday, Sep. 12, 1894.
Thanksgiving	Thursday, Nov. 22, 1894.
Board of Trustees meets	Tuesday, Dec. 11, 1894.
Christmas Holidays begin	Thursday, Dec. 20, 1894.
College Duties resumed	Wednesday, Jan. 2, 1895.
Celebration of Washington's Birthday	Friday, Feb. 22. 1895.
Patterson Society Oratorical Contest	Tuesday, March 26, 1895.
Final Examinations begin	Wednesday, May 15, 1895.
Union Literary Society Exhibition	Friday, May 24, 1895.
Patterson Society Exhibition	Friday, May 31, 1895.
Board of Trustees meet	Tuesday, June 4, 1895.
Class Day	Wednesday, June 5, 1895.
Alumni meet	Wednesday, June 5, 1895.
Alumni Banquet	Wednesday, June 5, 1895.
Commencement	Thursday, June 6, 1895.

College Directory.

	RESIDENCE.	COLLEGE QUARTERS.
Anderson, F. Paul.	125 S. Limestone St.	1st Floor Mechanical Hall.
Aubrey, Thomas.	246 S. Limestone St.	College Boiler Room.
Bennett, S. E.	125 S. Limestone St.	Veterinary Clinic Building.
Blackburn, Mrs Lucy B.	30 Woodland Ave.	No. 14, 1st Floor Main Building.
Blanton, R. L.	64 Market St.	No. 13, 1st Floor Main Building.
Clay, C. D.	83 N. Mill St.	New Dormitory.
Curtis, H. E.	126 S. Upper St.	Chem. Lab., 1st Fl. Sta. Bld'g.
Davis, J. M.	140 E. Maxwell St.	No. 1, Basement Main Building
Garman, H.	424 S. Limestone St.	1st Fl. and Basement Sta. Bld'g.
Hawkins, T. S.	55 Winnie St.	Experiment Farm.
Hodges, Miss Mary.	231 E. High St.	No. 10, 1st Floor Main Building.
Johnson, J. R.	Old Dormitory.	Mechanical Hall.
Jordan, A. T.	172 W. Maxwell St.	Basement Station Building.
Kastle, J. H.	1 W. High St.	2d Floor Station Building.
Logan, J. L.	217 N. Broadway.	No. 2, Basement Main Building.
Mathews, C. W.	410 S. Limestone St.	Basement Station Building.
Miller, A. M.	107 E. Maxwell St.	No. 16, 2d Floor Main Building.
Milligan, R. A.	492 S. Limestone St.	Mechanical Hall.
Muncy, V. E.	409 S. Limestone St.	No. 10, 1st Floor Main Building.
Murray, James.	428 S. Limestone St.	College Conservatory.
Neville, J. H.	218 W. Main St.	No. 21, 2d Floor Main Building.
Nelson, J. P.	407 S. Limestone St.	2d Floor Mechanical Hall.
Newman, J. W.	114 S. Limestone St.	No. 8, 1st Floor Main Building.
Patterson, J. K., Pres't.	Brick Dwlg. on Campus.	No 12, 1st F oor Main Building.
Patterson, W. K.	Brick Dwlg. on Campus.	No. 17, 2d Floor Main Building.
Pence, M. L.	106 S. Spring St.	1st Floor Mechanical Hall.
Peter, A. M.	171 Rose St.	Chemical Lab., 1st Fl. Sta. Bldg.
Pryor, J. W.	203 N. Broadway.	No. 9 1st Floor Main Building.
Roark, R. N.	420 S. Limestone St.	No. 11, 1st Floor Main Building.
Scovell, M. A.	Experiment Farm.	Office, 1st Fl. Station Building.
Shackleford, John.	71 Woodland Ave.	No. 19, 2d Floor Main Building.
Shelby, Miss A. M.	71 Ashland Ave.	Office, 1st Floor Station Building
Terrill, J. S.	172 W. Maxwell St.	1st Floor Station Building.
Wells, J. H.	107 E. Maxwell St.	2d Floor Mechanical Hall.
White, J. G.	110 E. Fourth St.	No. 15, 1st Floor Main Building.

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CATALOGUE

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CATALOGUE

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OF THE

STATE COLLEGE OF KENTUCKY

LEXINGTON

TOGETHER WITH THE REGULATIONS

FOR THE

SESSION ENDING JUNE 6 1895

LEXINGTON, KY.:
TRANSYLVANIA PRINTING CO.
1895.

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The State College of Kentucky.

History.

AGRICULTURAL and Mechanical Colleges in the United States owe their origin to an act of Congress, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862. The amount of land donated was 30,000 acres for each representative in the National Congress, Under this allotment Kentucky received 330,000 acres. Several years elapsed before the Commonwealth established an Agricultural and Mechanical College under the act. When established it was not placed upon an independent basis, but was made one of the Colleges of Kentucky University, to which Institution the annual interest of the proceeds of the Congressional land grant was to be given for the purpose of carrying on its operations. The land-scrip had meanwhile been sold for fifty cents per acre and the amount received—$165,000—invested in six per cent. Kentucky State bonds, of which the State became custodian in trust for the College.

The connection with Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed, and a Commission was appointed to recommend to the Legislature of 1879-80, a plan of organization for an institution, including an Agricultural and Mechanical College, such as the necessities of the Commonwealth required. The city of Lexington offered to the Commission (which was also authorized to recommend to the General Assembly the place which, all things considered, offered the best and greatest inducements for the future and permanent location of the College) the City Park, containing fifty-two acres of land, within the limits of this city, and thirty thousand dollars in city bonds, for the erection of buildings. This offer the county of Fayette supplemented by twenty thousand dollars in county bonds, to be used either for the erection of buildings or for the purchase of land. The offers of the city of Lexington and of the county of Fayette were accepted by the General Assembly.

By the act of incorporation, and the amendments thereto, constituting the charter of the Agricultural and Mechanical College of Kentucky, liberal provision is made for educating, free of tuition, the energetic young men of the Commonwealth whose means are limited. The Normal Department, for which provision is also made, is intended to aid in building up the Common School system by furnishing properly qualified teachers. This College, with the associate departments which will, from time to time, be opened as the means placed at the

disposal of the Trustees allow, will, it is hoped, in the not distant future do a great work in advancing the educational interests of Kentucky. Being entirely undenominational in its character, it will appeal with confidence to the people of all creeds and of no creed, and will endeavor, in strict conformity with the requirements of its organic law, to afford equal advantages to all, exclusive advantages to none. The liberality of the Commonwealth in supplementing the inadequate annual income arising from the proceeds of the land-scrip invested in State bonds, will, it is believed, enable the Trustees to begin and carry on, upon a scale commensurate with the wants of our people, the operations of the institution whose management and oversight have been committed to them by the General Assembly of Kentucky.

Object.

In the act of Congress making provision for the class of colleges to which the State College partly belongs, it is declared "that their leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The Normal School.

The Normal Department of the State College exists under the authority of acts of the General Assembly, approved April 23 and April 29, 1880. Section 7 of the first act briefly defines the object for which the Department was established, "but a Normal Department or course of instruction for irregular periods, designed more particularly, but not exclusively, to qualify teachers for common and other schools, shall be established in connection with the College." The second act provides the necessary endowment to make the Department effective.

The number of students annually enrolled in the Normal School has exceeded expectation. As they come from all parts of the State, and many of them return well prepared for the profession of teaching, they must greatly promote the efficiency of our common schools generally, and demonstrate the wisdom of the General Assembly in providing an inexpensive Normal School, centrally located and easy of access, to keep the State always supplied with well trained teachers.

The Kentucky Agricultural Experiment Station.

This Department of the State College originated in a resolution of the Executive Committee of the Board of Trustees, adopted in September 1885, when the Department was organized and a Director

appointed. In 1886 the Station was recognized and named by the General Assembly, and in 1887, it and a similar Station in every other State were each endowed by Congress with an annual appropriation of $15,000.

The work of the Station is directed to two objects: 1 To a constant succession of experiments by specialists, in order to learn what applications of science will ensure the best returns from the farm the garden, the orchard, the vineyard, the stock-yard and the dairy; 2 To the publication of bulletins announcing such results of the experiments as are found to be valuable to any of our people that seek profit from either of those prime sources of wealth, the soil, the flock or the herd.

Results of experiments have been published in six reports and fifty-three bulletins, and general appreciation of their utility is shown in the fact that, while no bulletin is sent except upon application for it, the mailing list of the Station contains more than 11,000 names and is ever increasing.

With an ample endowment, a large and commodious building planned for the purpose, adequate apparatus, a good experimental farm conveniently situated, and seven capable scientists always employed and in correspondence with other stations, The Kentucky Agricultural Experiment Station is not only an important adjunct of the College in the education of students for the leading industrial pursuit, but directly or indirectly through the wide and continual diffusion of knowledge for the benefit of so large a proportion of our population, it is bound to be extremely useful to the Commonwealth at large.

Location.

The Agricultural and Mechanical College of Kentucky is established in the old City Park grounds of the City of Lexington, given to the Commonwealth for this purpose. The site is elevated, and commands a good view of the city and surrounding country.

Lexington is now the most important railroad center in Kentucky, being in immediate communication with Louisville, Cincinnati, Maysville, Chattanooga, and with more than seventy counties in the Commonwealth. The long established reputation of the city for refinement and culture renders it attractive as a seat of learning, and the large body of fertile country adjacent, known as the "Blue Grass Region," with its splendid stock farms, affords unsurpassed advantages to the student of agriculture who desires to make himself familiar with the best breeds of horses, cattle, sheep and swine in America.

Grounds.

The campus of the College consists of 52 acres of land, located within the corporate limits of Lexington. The South Limestone street electric car line extends along the greater part of its western border, giving opportunity to reach in a few minutes any part of the city. The campus is laid out in walks, drives and lawns, and is planted with a choice variety of native and exotic trees and shrubs, to which additions are constantly being made. A portion of the land has recently been reserved for a botanical garden in which will be grown the more desirable native plants, with a view to testing their adaptability to cultivation, and to give increased facilities to students taking agricultural and biological courses. Two and a half acres, forming the north-east portion of the campus, enclosed and provided with a grand stand, is devoted to field sports of students.

About three-quarters of a mile south of the campus, on the Nicholasville pike, an extension of South Limestone street, is the Experiment Station Farm, consisting of forty-eight and a half acres. Here the field experiments of the Station are conducted, and students have opportunities to witness tests of varieties of field crops, dairy tests, fertilizer tests, fruit spraying tests, in short, all of the scientific experimentation of a thoroughly equipped and organized Station. The front of the farm is pasture and orchard. The back portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

Buildings.

The main college building is a structure of stone and brick, 140 feet long and 68 feet in width. It contains the office of the President and of the Business Agent, and on the third floor, counting the basement floor as one, is the chapel, in which each day the students and Faculty meet, and in which are held public gatherings and such other meetings as bring together the entire student body. The remaining space in this building is occupied by recitation rooms and by the society rooms of the students.

The Station building is a handsome structure, well planned for the object for which it is made. It is seventy feet in length by fifty-four feet in width, with a tower projection in front, and an octagonal projection eighteen by eighteen on the north side. The building is two stories high, and has a basement eleven feet from floor to ceiling. The main entrance is on the first floor, on the west side of the building, through an archway fifteen feet wide. The basement is occupied in part by the Station and in part by the College. The next floor above is devoted to office and laboratory work of the Station, while the upper floor accommodates the College work in Chemistry.

The building devoted to Mechanical Engineering covers altogether

an area of about 10,897 square feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in this branch of engineering. It contains rooms as follows: Recitation room: 34′×25′; recitation room, 25′×23′, library and exhibition room 25′×23′; office 10′×12′; drawing room, 34′×35′; engine room, 20′×30′: tool room, 30′×6′; wash room, 30′×10′, boiler house, 27′×27′; wood shop, 80′×34′; machine shop 42′×35′ blacksmith shop, 35′×35′; foundry 35′×37′.

A new brick two-story building has been erected and furnished with modern conveniences for the work in Veterinary Medicine.

Two large brick dormitories on the campus afford boarding conveniences for students who wish to lessen expense in this direction. Other buildings on the campus are a brick dwelling for the President and a frame cottage at present occupied by the Commandant.

On the Experiment Farm are a brick dwelling occupied by the Director of the Station, and the usual farm buildings for the care of tools, the protection of stock, and the like.

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(In the order of appointment.)

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Professor of History, Political Economy and Metaphysics.

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Professor of English and Logic.

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Professor of Mathematics and Astronomy.

JOHN HENRY NEVILLE, A. M.,
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Principal of the Normal School.

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Professor of Mechanical Engineering.

JAMES POYNTZ NELSON, C. E., M. E.,
Professor of Civil Engineering.

SAMUEL ELSWORTH BENNETT, D. V. M.,
Professor of Veterinary Science.

CLARENCE WENTWORTH MATHEWS, B. S.,
Professor of Agriculture, Horticulture and Botany.

JOSEPH WILLIAM PRYOR, M. D.,
Professor of Anatomy and Physiology.

ARTHUR MCQUISTON MILLER, A. M.,
Professor of Geology and Palæontology.

MERRY LEWIS PENCE, M. S.,
Professor of Physics.

SAMUEL MILLER SWIGERT, CAPT. 2D CAV., U. S. A.,
Commandant, and Professor of Military Science.

PAUL WERNICKE,
Acting Professor of French, German and Spanish.

Assistant Instructors.

JOHN LEWIS LOGAN, A. B.,
First Assistant in the Academy.

JOHN WESLEY NEWMAN, B. S.,
Assistant in the Normal School.

ROBERT LEE BLANTON, M. LIT.,
Assistant Professor of Greek and Latin.

JOSEPH MORTON DAVIS, A. B., B. S.,
Second Assistant in the Academy.

VICTOR EMANUEL MUNCY, B. S.,
Third Assistant in the Academy.

JAMES HENRY WELLS, B. M. E.
Assistant Professor of Mechanical Engineering.

JAMES RICHARD JOHNSON, B. M. E.,
Assistant in Shop-work and Drawing.

WILLIAM ANDREW PATTERSON, B. S.,
Assistant Professor of History.

EDWIN CHESTERFIELD AULICK, A. B.,
Assistant in Latin.

Other Officers.

MRS. LUCY BERRY BLACKBURN,
Monitress.

JAMES G. WHITE,
Business Manager.

RURIC N. ROARK,
Secretary of the Faculty.

JOSEPH W. PRYOR, M. D.,
Surgeon of the Battalion.

MISS MARY HODGES,
Stenographer.

In Memoriam.

TO PERPETUATE THE MEMORY OF EMINENT WORTH,
HIS COLLEAGUES HERE RECALL
THE HIGH CHARACTER AND DISTINGUISHED CAREER
OF

DOCTOR ROBERT PETER,

LONG A PROFESSOR IN THIS COLLEGE.

BORN IN CORNWALL, ENGLAND, JANUARY, 1805; REMOVED TO PITTSBURG, 1821; PROFESSOR OF CHEMISTRY IN THE WESTERN UNIVERSITY OF PENNSYLVANIA, 1830-32; OF CHEMISTRY AND PHARMACY IN TRANSYLVANIA UNIVERSITY, 1832-50; MADE M. D. BY THAT UNIVERSITY, 1834; PROFESSOR OF CHEMISTRY IN THE KENTUCKY SCHOOL OF MEDICINE, LOUISVILLE, 1850-52; OF CHEMISTRY AND PHARMACY IN TRANSYLVANIA UNIVERSITY, 1852-60; CHEMIST OF THE KENTUCKY GEOLOGICAL SURVEY, AND AUTHOR OF VARIOUS REPORTS, 1854-61; PROFESSOR OF CHEMISTRY AND EXPERIMENTAL PHILOSOPHY IN KENTUCKY UNIVERSITY, 1865-78; OF CHEMISTRY IN THE STATE COLLEGE OF KENTUCKY, 1878-87; MADE PROFESSOR EMERITUS, 1887; CHEMIST OF THE SECOND GEOLOGICAL SURVEY OF KENTUCKY, 1874-93; DIED NEAR LEXINGTON, APRIL 26, 1894.

Intense devotion to physical science
and the work of the laboratory;
purity of speech and modesty of manner;
fidelity to all duties, domestic, professional and civic;
fidelity to settled conviction and principles;
above all,
his long and illustrious career in educating
so many thousands of the young, and in setting before
them a model so worthy of their imitation and remembrance:
these were the traits, this was the service
that crowned his busy life of nearly ninety years
with honor, admiration and renown.

THIS PAGE COMMEMORATES

FRANÇOIS MARIE HELVETI,

SOLDIER, SCHOLAR, GENTLEMAN.

Born in Silesia about 1823;

Maj. and Lt. Col. in the Federal army, 1861-65;

Prof. of French and German in this College, 1869-94;

Died in St. Joseph's Hospital, Lexington,

April 25, 1894.

AS A PROFESSOR, HE WAS ACCOMPLISHED, ABLE AND EFFICIENT; AS A CITIZEN, HE FULFILLED EVERY DUTY TO HIS ADOPTED COUNTRY; AS A MAN, HE WAS UNIVERSALLY RESPECTED.

HIS COLLEAGUES KNOW HIS WORTH, DEPLORE HIS LOSS, AND PAY THIS TRIBUTE TO HIS MEMORY.

Kentucky Agricultural Experiment Station.

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Director.

ALFRED MEREDITH PETER,
First Chemist.

HENRY ERNEST CURTIS,
Second Chemist.

HARRISON GARMAN,
Entomologist and Botanist.

JOSEPH SAMUEL TERRILL,
Assistant Entomologist and Botanist.

CLARENCE WENTWORTH MATHEWS,
Horticulturist.

ALVA THOMAS JORDAN,
Assistant Horticulturist.

THOMAS SPURR HAWKINS,
Foreman of the Farm.

Departments and Courses of Study.

The studies of the State College are distributed into seventeen Departments, each in charge of a responsible head, the heads consti tuting the Faculty. The Departments in chronological order are:

I. History, Political Economy and Metaphysics.
II. Agriculture, Horticulture and Botany.
III. The English Language and Literature.
IV. Military Science.
V. Chemistry.
VI. Mathematics and Astronomy.
VII. The French and German Languages.
VIII. The Greek and Latin Languages.
IX. The Academy.
X. The Normal School.
XI. Civil Engineering.
XII. Zoology and Entomlogy.
XIII. Mechanical Engineering.
XIV. Anatomy and Physiology.
XV. Veterinary Science.
XVI. Geology and Palæontology.
XVII. Physics.

1. Department of History, Political Economy and Metaphysics,

PRESIDENT PATTERSON.

The course of instruction in this Department includes an outline of Ancient, Mediæval and Modern History. Attention is given to the various forms of government, their characteristic features and points of difference, to the progress of civilization, the origin and development of parliamentary government, the rights and duties of citizenship.

In the period covered, Modern History, and the History of England and the United States occupy the most prominent place.

Walker's Science of Wealth is made the basis of instruction in Political Economy. Students are, however, made familiar with the principles upon which rest the rival doctrines of Protection and Free Trade.

The study of Mental and Moral Philosophy extends through one year. Sir William Hamilton is used as the basis of instruction in Metaphysics, and Janet in Morals. Concurrently with recitations from these authorities, the pupil is made familiar with the principles upon which rival systems of philosophy and morals are based and

the arguments by which they are maintained. Ancient and modern systems are thus brought under review, and the necessary data furnished upon which to ground intelligent opinions.

II. Department of Agriculture, Horticulture and Botany.

PROFESSOR MATHEWS.

This Department occupies rooms on the lower floor of the Experiment Station Building. The main room is suitably furnished with laboratory tables, water and gas fixtures and other apparatus for class instruction.

Botany.

In this study the amount of instruction given varies from one to four or more terms in accordance with the requirements of the general course entered by the student. The laboratory method is the form of instruction principally used, and from the very beginning of his work the student is directed to a study of plants themselves, using the text book only in a subordinate manner, to correct his mistakes and to enlarge his field of view. In the course of the year class excursions are arranged to the Kentucky river and other localities of botanical interest for the purpose of collecting and studying plants in their native habitat.

Among the facilities for study the Department possesses a greenhouse (20 ft. x 50 ft.) giving an opportunity for the continuous study of living plants throughout the winter months and for experimental work in plant physiology.

Each student is also supplied, for histological study, with dissecting and compound microscopes, microtomes and other appliances from the best makers.

The herbarium contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. It was primarily due to the efforts of Dr. Robert Peter, who made a quite extensive collection of Kentucky plants about sixty years ago, and also exchanged specimens with the prominent botanists of that day, thus forming the nucleus of the present collection, which therefore possesses considerable historical value. Constant additions are now being made to the herbarium by collecting excursions over the State, and by exchanges with other institutions.

A carefully selected library, containing the most important botanical works of reference, is constantly available to the class.

The nucleus of a botanical garden has been commenced upon the College campus, to which additions will be made as rapidly as circumstances will permit.

The text books required in botany during the first year of instruction are Gray's Lessons and Manual of Botany and Bastin's College

Botany, while constant reference is made, especially in the latter part of the course, to such standard works as Sach's Physiology of Plants, De Bary's Comparative Anatomy of Phanerogams and Ferns, Strasberger's Practical Botany, Gray's Structural Botany, Goodale's Physiological Botany, Darwin's Works, Beale's Grasses, Bennett and Murray's Cryptogamic Botany, Lesquereux & James' Mosses, Underwood's Ferns, Wolle's Algæ and others.

Agriculture and Horticulture.

In these subjects, much of the equipment mentioned under Botany is again utilized. As in Botany, the pupils are at once directed to the study and practical manipulation of plants rather than making any text-book their main dependence.

The greenhouse is used for instruction in seed testing, seed sowing, propagation by cuttings, grafting, etc., during the winter months, while from spring to fall the various operations of open air gardening are studied, especially the less commonly understood practices of transplanting, grafting, budding, pruning, crossing, etc.

The extensive list of varieties of vegetables and fruits growing upon the Experiment Farm gives an opportunity for a comparative study of varieties, rarely if ever found upon the ordinary farm.

The student is taught to perform experiments for himself in the best manner and to test the theories of the books by actual practice.

The college campus now contains a large number of ornamental trees and shrubs, and these with numerous varieties of annual and perennial flowering plants give the pupil a good opportunity to study ornamental horticulture.

In the distinctively agricultural studies, the experiments of the farm department of the Experiment Station furnish an excellent opportunity for the study of the effects of various fertilizers, varieties of wheat, corn and other field crops, and the many problems of dairying. The numerous fine herds of cattle and horses in the surrounding country are also freely utilized for purposes of instruction.

The following books are used as works of reference:

In Horticulture, Henderson's Gardening for Profit; Greiner's How to Make the Garden Pay; Thomas,' Barry's and Downing's works upon Fruit Culture; Bailey's Nursery Book and Grape Training; together with many other special works upon grapes, peaches, apples, floriculture, landscape gardening and the best horticultural journals.

In Agriculture, Storer's Agriculture; Johnson's How Crops Grow and How Crops Feed; Stewart's and Armsby's Manuals of Dairying and Cattle Feeding; Warfield's Cattle Breeding and other special works upon horses, sheep, and swine, together with the current literature upon these subjects.

III. Department of the English Language and Literature.

PROFESSOR SHACKLEFORD.

Preparatory Freshman Class.

First Term.—Rhetoric and Composition; Diction and Sentence Construction; Punctuation; Recitations and exercises on the blackboard.

Second Term.—Narrative Composition; Written Essays, read in class and corrected; Synonyms, Prosody.

Freshman Class.

First Term.—English Prose and Poetry; Interpretations of Masterpieces of English Prose and Poetry; Written Essays, read in class and corrected.

Second Term.—Studies in English Literature.

Each pupil is required to commit to memory and recite in class selections from the great English poets and prose writers, including parts of Shakespeare's Julius Cæsar and the Merchant of Venice; Bacon's Essays on Studies and Friendship; Milton's L'Allegro and Il Penseroso and extracts from Areopagitica; Bunyan's Golden City; Dryden's Alexander's Feast; Gray's Elegy; parts of Goldsmith's Deserted Village; passages from Burke's Speech on the Spirit of Liberty in the American Colonies; Burns' Cotter's Saturday Night; Wordsworth's Intimations of Immortality; Coleridge's Hymn to Mont Blanc; the closing passages of Webster's speech in reply to Hayne; Byron's Prisoner of Chillon; Shelly's Ode to the Skylark; Bryant's Thanatopsis; Emerson's Essay on Compensation; Longfellow's Keramos, Holmes' Deacon's Masterpiece; Tennyson's Ulysses; De Finibus, by Thackeray; The Vision of Sir Launfal, by Lowell.

Text-book: Swinton's Studies in English Literature.

Sophomore Class.

First Term.—History of English Literature; Class Reading from Bacon, Burke, Milton, Shakespeare and other great English writers.

Text-books: Shaw's Manual of English Literature and Hudson's Annotated English Classics.

Second Term.—Advanced Rhetoric; Lectures on the Elements of Criticism.

Text-books: Genung's Rhetoric; Minto's Manual of English Prose Literature.

Junior Class.

First Term.—The Science of Logic; Lectures on Pure Logic, in which Stoicheiology and Methodology are explained and illustrated; explanations and illustrations of the Analytics of Aristotle and the New Analytic of Sir Wm. Hamilton; exercises in Figure, Mood and Reduction; Lectures on Fallacies and the Sources of Error; Lectures on Inductive and Analogical Reasoning; Lectures on Evidence.

Text-book: Ievons' Logic.

Second Term.—Anglo-Saxon and Early English.

Text-book: Corson's Anglo-Saxon and Early English.

IV. Department of Military Science.

CAPTAIN SWIGERT.

Instruction in this Department is both practical and theoretical.

The Practical course embraces the U. S. Drill Regulation for Infantry, including the schools of the soldier, company, and battalion in close and extended order; ceremonies; so much of the Artillery Drill Regulations as pertains to the manual of the piece and mechanical manoeuvres; signalling with flag and heliograph; guard duty and minor tactics.

Theoretical instruction embraces recitations in U. S. Drill Regulations for Infantry and Artillery; instruction in the preparation of reports and returns pertaining to a company; lectures on organization and administration of the United States Army, and general principles governing in the Art of War

All students below the grade of senior are required to take this course unless disqualified by reason of physical disability.

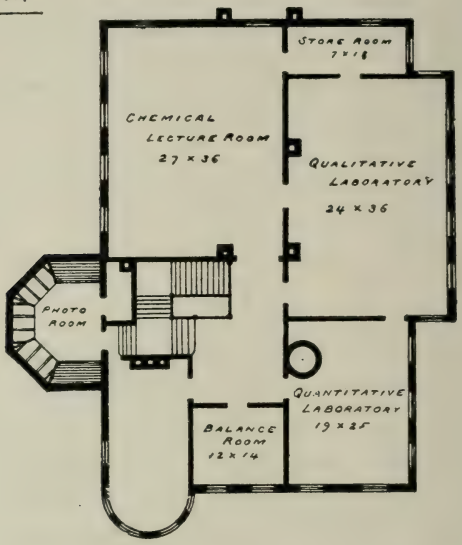
V. Department of Chemistry.

PROFESSOR KASTLE.

The Chemical Department dates from the establishment of the institution. For many years it was under the direction of Dr. Robert Peter, who by his labors in analytical chemistry has done more probably than any other man to develop the abundant mineral resources of the State. The Department remained in the hands of Dr. Peter until 1887, when he resigned. Dr. E. A. Von Schweinitz was then appointed to the vacancy created by the resignation of Dr. Peter. He held the position during the collegiate year 1887-1888, when he also resigned, and then the present incumbent was appointed. For many years the chemical laboratories and lecture room occupied the eastern part of the main College building. In September, 188?,

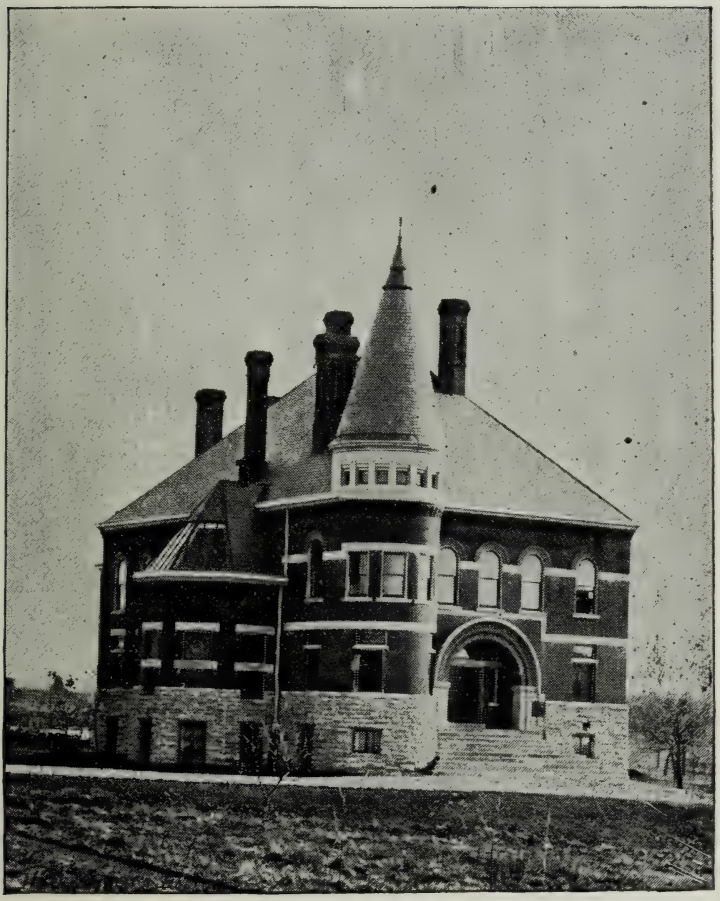
KENTUCKY AGRICULTURAL EXPERIMENT STATION BUILDING

SECOND FLOOR



ROOMS OF CHEMICAL DEPARTMENT.

however, the Experiment Station building having been completed, the apparatus and equipment were moved from the laboratories in the main building to more suitable and beautiful rooms on the second floor of the Experiment Station building. The lecture room and the laboratories, qualitative and quantitative, of the Chemical Department are exceedingly well adapted to their purpose, and are among the best constructed and most handsomely furnished of the rooms in the College. The qualitative laboratory contains three very large working tables, each of which can easily accomodate ten students. The quantitative laboratory is also well equipped with tables, hoods, water, gas, electricity, etc., and has desk room for at least fourteen students in all. The lecture room is well lighted and heated and beautifully furnished and commodious, having a seating capacity of about seventy-five. Besides the laboratories and lecture room, there are several other small rooms on the same floor set aside for the use of the Chemical Department, an instructor's office, a balance-room and a store-room.



EXPERIMENT STATION BUILDING.

APPARATUS.

The Department is well equipped with the commoner forms of chemical apparatus and chemicals. In addition to these it owns several of the more expensive pieces of apparatus, such as several exceedingly delicate balances for analytical work; a grand model Bunsen & Kirchoff spectroscope; platinum apparatus; a complete outfit for electro-plating; vapor density apparatus; a glass model ice machine, etc., etc. These of course will be added to from time to time as the needs of the Department demand and the resources of the institution permit; as it is now, however, the equipment is such as to readily permit the student to obtain, at first hand, a good working knowledge of chemical science.

VI. Department of Mathematics and Astronomy.

PROFESSOR WHITE.

A thorough knowledge of Arithmetic and of Algebra through quadratic equations, as presented in Wentworth's Higher Algebra is required for admission to the Freshman class.

Freshman Year.

Text-books: Wentworth's Higher Algebra, Wentworth's Plane and Solid Geometry, Wentworth's Trigonometry.

The first term is devoted to the study of Geometry, Books I. to V. inclusive.

During the second term Algebra and Plane Trigonometry are studied simultaneously; the work in Algebra being chapters XXII. to XXXIV. inclusive.

Sophomore Year.

Text-books: Wentworth's Plane and Solid Geometry, Bowser's Analytical Geometry.

The studies of the first term are Solid Geometry and Conic Sections, the entire second term being given to Analytical Geometry.

Junior Year.

Text-book: Bowser's Calculus.

The study of Calculus is optional with all students except in the Mechanical and Civil Engineering Courses.

Senior Year.

Text-book: Young's Elements of Astronomy. The object of this class is to give to the students a knowledge, as accurate and as extensive as our time will permit, of the phenomena of the heavenly bodies and of their probable condition and history. No efforts will be spared to make the study of this branch of science highly interesting and instructive.

VII. Department of French and German.

PROFESSOR WERNICKE.

I. German.

FIRST SESSION.

First Term.—Joynes-Meissner's Grammar for Colleges, Part I., oral exercises.

Second Term.—Harris' German Composition, Parts I. and II.; prepositions and strong verbs; construction of the German sentence; Easy reading matter.

SECOND SESSION.

First Term.—Schiller's Wilhelm Tell; Freytag, Aus der Zeit Friedrichs d. Grossen; exercises in composition continued.

Second Term.—Goethe, Hermann u. Dorothea; Lessing, Minna v. Barnhelm; Schiller, Leid v. d. Glocke; Bernhardt, Literaturgeschichte; exercises in conversation and composition

THIRD SESSION.

(Optional) Hedges' Course in Scientific German; selections from authors of the VI. and VIII. periods of the literature.

II. French.

FIRST SESSION.

First Term.—Ahn-Henn, Book First; oral exercises to ensure correct pronunciation.

Second Term.—Irregular verbs; pronouns; elements of syntax; reading from Super; Preparatory French Reader.

SECOND SESSION.

First Term.—Voltaire, Charles XII.; review and constant exercises in grammar.

Second Term.—Syntax; Luquiens, French Prose of Popular Science; selections from modern authors.

THIRD SESSION.

(Optional). Modern literature; conversational exercises; Duval, Histoire de la literature Francaise.

III. Spanish.

A course in Spanish may be taken as an equivalent for third year French.

VII. Department of Greek and Latin.

PROFESSOR NEVILLE.

Preparatory Course.

FIRST SESSION.

Bingham's Latin Grammar: Gradatim (194 Latin stories,) or five Colloquies of Erasmus; White's Beginner's Book in Greek. Inflection and translation are taught through daily exercises on the blackboard.

SECOND SESSION.

Five books of Cæsar, or two books of Cæsar and twelve lives of Nepos; six books of Virgil; exercises in writing Latin; Sallust's Catiline or Cicero De Senectute; the Beginner's Book reviewed; five books of the Anabasis, six of the Iliad.

Collegiate Course.

THIRD SESSION.

Livy, books I. and XXI.; six orations of Cicero; thirty letters of Pliny; the first forty exercises of Arnold's Latin Prose Composition: selections from Herodotus; Plato's Apology and Crito; four orations of Demosthenes; dialogues of Lucian.

FOURTH SESSION.

Horace, except a part of the Epodes and Satires; the second forty exercises of Arnold; Tacitus, Germania and Agricola; the III., VII., VIII. and X. Satires of Juvenal, or, instead of the VII., and VIII., an essay of Seneca; two books of Thucydides; three Greek dramas (Prometheus, Medea, Œdipus Rex).

IX. The Academy.

PROFESSOR PATTERSON.

The Academy is under the immediate direction and management of a Principal and three Assiscants, all of whom are experienced professional teachers.

The pupils are subject to the same rules and regulations as the students of the College. Their attendance at the College is required only during the hours of recitation and other prescribed College exercises, such as chapel, drill, etc., the preparation of their lessons being made elsewhere.

The courses of instruction in the Academy are provided for those who enter directly from the common schools, and are intended to supply the necessary training intermediate between the course of study prescribed by the State Board of Education for the common schools and the Freshman Class of the College.

Applicants for admission to the Academy, if county appointees

must be at least fourteen years of age, and must be provided with credentials of scholarship from the County Superintendent. They must also pass a satisafactory examination in spelling, reading, writing, arithmetic, history of the United States, English grammar and geography, in order to be admitted.

Other applicants must be at least fifteen years of age, and must have completed the common school course prescribed by the State Board of Education. They must pass a satisfactory examination in spelling, reading, writing, arithmetic to percentage, English grammar through syntax, and geography, in order to be admitted. Applicants from the city will be required to pass an examination on all the subjects embraced in the first year's Scientific course in the Academy. Those who enter at any other time than the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes which they propose to enter.

Students matriculated in the Academy will be required to pursue one of its prescribed courses of study and will not be permitted to take any work outside of this course except on the recommendation of the Principal.

Entrance Examination.

For the benefit of those, other than county appointees, who desire to know the character of the examination which applicants for admission will be required to pass, the following examination papers are submitted as a sample. It is not to be understood that these are the questions on which the pupils will be examined but that they indicate the attainments necessary to enter the Academy of the College. Those who expect to enter more advanced classes will be required to pass an examination on all that the class which they propose to enter has passed over.

I. ARITHMETIC.

Find the greatest common divisor and the least common multiple of 899 and 961.

Simplify $2\frac{1}{4} \times \frac{10\frac{3}{4} - 4\frac{11}{12}}{6\frac{3}{16} + 7\frac{2}{3}} \div \frac{3\frac{5}{11}}{1\frac{2}{5} \times 9\frac{1}{11}}$

Find the number of bushels that will fill a bin 8.5 feet long, 4. 5 feet wide, 3.5 deep.

The longitude of Rome is 12° 27′ 14″ east; the longitude of Chicago is 87° 35′ west; find the difference of time between the two places.

What will be the cost of plastering the walls and ceiling of a room 27 feet 4 inches long, 20 feet wide, and 12 feet 6 inches high, at 27 cents per square yard, if 20 square yards be deducted for doors, windows and base-boards ?

If a train at the rate of $\frac{5}{13}$ of a mile per minute takes $3\frac{1}{4}$ hours to reach a station, how long will it take at the rate of $\frac{7}{15}$ of a mile per minute?

A and B can do a piece of work in $2\frac{1}{2}$ days, A and C in $3\frac{1}{3}$ days, B and C in $4\frac{1}{4}$. Required the time in which all these working together can do the work and in which each can do the work alone.

A farmer sowed 5 bushels, 1 peck, 1 quart of seed, and harvested from it 103 bushels, 3 pecks, 5 quarts. How much did he raise from a bushel of seed?

Reduce 9 square chains, 11.25 square rods, to the decimal of an acre.

If a bar of iron $3\frac{1}{3}$ feet long, 3 inches wide, $2\frac{2}{4}$ inches thick weighs 93 pounds; what will be the weight of a bar $3\frac{2}{3}$ feet long, 4 inches wide, and $2\frac{1}{2}$ inches thick?

II. ENGLISH GRAMMAR.

Give illustrations of all the parts of speech.

Define pronoun, preposition, adverb, clause and phrase.

How are the possessive cases of nouns and pronouns formed?

Define a simple sentence, a complex sentence, and give examples of each.

Analyze the following sentence and parse in full all the words in it:

"The soldiers of the tenth legion, wearied by their long march, and exhausted from want of food, were unable to resist the onset of the enemy."

III. GEOGRAPHY.

What are the circles of the earth?

What are the meridians?

Define latitude and longitude.

What two meridians bound the hemispheres?

Define the two principal forms of government.

Bound North America and describe its political divisions.

Why is the climate of Western Europe different from that of America in similar latitudes?

Describe the mountains, principal rivers and lakes of Asia.

Describe the natural routes of commerce.

X. The Normal School.

PROFESSOR ROARK.

Although organized as a Department of the College, co-ordinate with the other departments, yet the Department of Pedagogy is, more properly, a school in itself, made so by the necessities of the Public School system of the State. Therefore, in addition to offering full work in Pedagogy (Educational Psychology and its applications in School Economy and Educational Methods), this Department

also provides academic instruction for teachers who desire to fit themselves for higher grades of work. In administering the Department the real needs and limitations of the average Public School teacher are kept constantly in view, and the elevation of the common schools of the State is the basic principle of the work.

XI. Department of Civil Engineering.

PROFESSOR NELSON.

This Department comprises the study of the application of Mathematics to mechanical problems.

1. *Mechanics.*—This course includes the study of Analytical Mechanics with especial reference to the problems arising in the design of structures and machines; Applied Mechanics, including the analytical and graphical methods of testing forces in structures of all kinds.

Text-books: Bowser's Analytical Mechanics, Merriman's Applied Mechanics.

2. *Bridges and Structures.*—This course includes the theory of the use of materials in framed structures and in bridges built of masonry.

Text-books: Baker's Masonry Construction, Du Boise's Strains in Framed Structures, Johnson's Framed Structures.

3. *Field Engineering.*—This course includes the study of the handling of all kinds of field instruments which are provided by the College, land and railway surveying, projection of maps, construction of public highways and observations as applicable to geodetic problems

Text-books: Davies' Surveying, Searles' Field Book, Johnson's Surveying, Streets and Pavements.

4. *Municipal Engineering.*—This course includes the study of the subjects of hydraulic engineering in its several branches, and economic handling of the problem of sewerage of cities and sewage disposal.

Text-books; Fanning's Water Supply, Waring's Sewerage and Land Drainage.

5. *Mining.*—This course includes the study of the methods of prospecting for ore, for its extraction, for the proper location and development of mines and of the machinery used in mining operations.

Text-book: Collin's Lectures on Mining.

6. *Advanced Mechanics.*—To those who desire it, and who are properly prepared, opportunity will be given for the study of the higher problems in Applied Mechanics according to the methods of the Infinitesimal Analysis.

XII. Department of Zoology and Entomology.

PROFESSOR GARMAN.

The Department was established on an independent footing with the beginning of the school-year 1890-'91. Since then the larger of

the two rooms occupied by it has been furnished as a laboratory in order that a practical knowledge of Zoology and Entomology may be given to students, and that the instruction may be more effective as a training of the powers of observation and reflection. The Laboratory is now provided with tables, each accommodating, if necessary, two persons, and is furnished with reagents for making simple tests, and for staining and otherwise treating tissues to prepare them for study with the microscopes. The equipment and apparatus consist of eighteen microscopes, such as are used in the best laboratories in this country and Europe, two microtomes, a Schanze and a Thoma, both imported from Germany for the Department, of paraffine baths of the Naples Zoological Station pattern, ten dissecting stands made for us by the Bausch & Lomb Optical Co., of Rochester, New York, dissecting trays, bell jars, and a full set of Leuckart, and Nitsche's celebrated zoological charts. Much of the illustrative material used by us is collected by us within the State, such material being considered most valuable as serving to familiarize students with objects they are likely to encounter in after life. A good collection of birds is available for analytical work, and students taking the Biological, Scientific and Agricultural courses are required to learn the use of such "keys" as Jordan's Manual of Vertebrate Animals, and to know something of the classification of birds and of the more common species. A similar collection of fishes is also available for analytical work. For the study of vertebrate anatomy, a small collection of mounted skeletons has recently been secured, including such types as the gibbon, hyena, porpoise, duckbill bird, turtle, lizard, fish and frog. It will be added to from time to time, since it is intended to provide for a special course in Osteology. Where it is impossible to provide fresh material, alcoholic types of the different groups of animals are used, so that each student dissects and otherwise examines at least one example of every animal sub-kingdom. Types of every class of each sub-kingdom are examined in this way, where time and available material permit. We now provide examples of all the peculiar groups of salt-water animals, and by means of them are able to give a very good knowledge of the structure and relations of such forms as the squid, star-fish, sea-urchin, sea-anemone, ascidian and the like.

The entomological work is made a separate feature in this Department, partly because of the great extent of the class Insecta, but chiefly because of its economic importance If, as is estimated by our best entomologists and statisticians, we annually lose in this country, from the depredations of injurious insects, not less than $100-000,000 it is highly important that a kuowledge of insects and their habits should be disseminated among the people, and it is especially important in a State like Kentucky, where the leading industry

is agriculture. It has been urged that the reduction of a crop to the extent of one-fourth or one-half its value by insects, should be regarded as a tax of twenty-five or fifty per cent. on its full value. Such a tax is collected year after year, often without an attempt at resistance. It is the purpose of the entomological work at the College to place in the hands of students, who expect to make farming their occupation, such means of defense against loss as are known to those who have given the matter study. The Department is especially well provided for in this direction, having the benefit of the work done at the Experiment Station, and having access to the collections, apparatus and library accumulated for Station work. The collection now contains examples of most of the injurious insects which occur in the United States, and is constantly being enlarged. The Station is well supplied with breeding cages for use in studying the habits and life-histories of insects so that students who wish to do so have an opportunity to observe for themselves the various stages presented by a developing insect, and may see them, in many cases, actually engaged in their destructive work. An insectary, which we hope soon to add to our facilities, will give us increased opportunity in this field of investigation.

XIII. Department of Mechanical Engineering.

PROFESSOR ANDERSON.

This Department has recently been reorganized and is now one of the most completely equipped in the College. A description of the new building is given under the head of "buildings." The equipment of the different rooms is briefly described below.

The Drawing-room contains drawing-tables, drawing-boards, curves, scales, tee-squares, and other special drawing apparatus to accomodate thirty students.

The Engine-room contains a 10-inch by 24-inch Hamilton-Corliss non-condensing engine and an 8.5 kilowatt Edison compound dynamo with amperemeter, resistance box and volt-meter so that the dynamo may be used for experimental purposes.

The Wood-shop contains twenty benches, with complete set of wood-working tools, thirteen wood turning lathes, each with complete set of turning-chisels, band sawing-machine, universal wood-worker, fret-saw, and grindstone.

The Foundry contains a thirty inch cupola furnace with a capacity of a ton of metal per hour, brass furnace, twelve complete sets of moulder's tools, twelve benches, also ladles, clamps, core-room, core-oven, pattern-rack, and the tools employed in practical foundry.

The Blacksmith-shop contains a ten-inch steel pressure blower, twelve forges, twelve anvils, three blacksmith vises, an emery grinder

and twelve complete sets of blacksmith tools for carrying on all kinds of iron and steel forging.

The Machine-shop contains six lathes, one milling-machine, one self-feed drill, one planer, one sharper, one tool-grinder, one emery grinder and twelve iron vises, and benches for vise work in metal.

The Testing-laboratory is equipped with a 100,000 pound Riehle testing-machine, a pair of Crosby indicators, a Corliss engine used exclusively for experimental work, a 51-horse power water tube boiler, a Riehle-Yale extensometer and instruments for measurement of all dimensions.

The Tool-room is supplied with a fine assortment of superior tools for work in iron, steel, brass and wood, and contains such stock and supplies as may be used in construction in the Mechanical Laboratories named above.

The Wash-room contains lockers for sixty-five students and is supplied with marble basins and closets.

The Boiler-house contains a fifty-one horse power Babcock and Wilcox water-tube boiler and a Dean Bros'. No. 3, Steam-pump.

The building is heated by steam and lighted by 130 incandescent and 4 arc lamps.

XIV. Department of Anatomy and Physiology.

PROFESSOR PRYOR.

Anatomy, Physiology and Hygiene are taught to students of the Classical, Scientific. Biological, Veterinary and Normal courses, extending throughout both terms of the Freshman year.

At the beginning of the second term a special class is organized for the benefit of Normal students. A thorough working knowledge of these branches is taught by means of lectures, demonstrations and recitations.

This Department is well provided with the apparatus necessary to illustrate the work of the student. The equipment includes papier-mache manikin, and models (Auzoux) of eye, ear, larynx, etc., skeletons, charts, microscopes, etc. Sufficient Histology is given for all practical purposes.

To those who intend to apply themselves hereafter to the study of medicine, this department offers inducements seldom obtained in other educational institutions.

Text-books: Huxley and Youmans, Martin's Human Body and Martin's Briefer Course

XV. Department of Veterinary Science.

PROFESSOR BENNETT.

This department is provided with a commodious and well appointed dissecting room, which was but recently completed and is equipped with the best modern apparatus.

XVI. Department of Geology and Palæontology.

PROFESSOR MILLER.

Geology and Palaeontology.

The exact time in a student's course at which the different subjects comprehended in this Department are studied, varies somewhat for the different courses; but the order of succession is as follows:

(1) Physiography (2) Mineralogy (3) Palæontology (4) Advanced Geology. Besides these, in which what follows is intimately based on that which precedes, are two self-contained studies: (5) A Shorter Course in Geology and (6) Economic Geology.

Physiography.

First Term.—Required for Seniors in the Scientific and Classical Courses. Normal students have the option between this and (5) the Shorter Course in Geology. Elective for students in the Scientific Course.

The object of this study is to give the student a somewhat comprehensive view of the earth and its inhabitants. Facts and theories in Physics, Biology, Geography and Astronomy are enlarged upon at greater length than is usual in studies commonly included under the name of Physical Geography. Physiography is especially adapted to those preparing to teach, and to those in the Classical Department, who without wishing to concern themselves much with technical details, still desire some knowledge of those broad facts and principles of science, which are essential to all who would lay claim to being posessed of a liberal education.

Text-book: Mill's Realm of Nature.

Mineralogy.

First Term.—Required for Seniors in the Scientific Course. The object of this study is to render the student familiar with the composition and physical characteristics of those common minerals and rocks likely to come under his notice. as well as in the ordinary round of every day observation as in geological pursuits. The instruction involves laboratory and text-book work. Crosby's Tables for Determination and Common Minerals and Rocks are used.

Palaeontology.

First Term.—Required for Seniors in the Biological and Scientific courses. Lectures on the nature and zoological position of different fossil groups are given, and the student is expected to become familiar with the appearance of the fossils themselves by actual examination. Much of the work involves the use of artificial keys for determination, similar to those used in Botany and Zoology.

Special attention is paid to the fossils common in Kentucky. The

Department is well equipped in collections for this purpose. The instruction is almost entirely by lectures and laboratory work.

Advanced Geology.

Second Term.—Required for Senior scientific and biological students and open to others who may have elected to take the Mineralogy and Palæontology which precedes. It is meant to be the culmination for those who have availed themselves of all the opportunities for the study of Geology offered in this Department. It is to be hoped that some of these may be induced to go farther, and either in their home localities or elsewhere, make a beginning at doing original work. Kentucky, with its large areas of practically unexplored territory geologically, offers an especially fine field to young geologists in this respect.

Text-book: LeConte's Elements.

Shorter Course in Geology.

This has been introduced in response to an especial demand from the Normal Department for a course in Geology that would be at once short and self-contained.

Text-kook: LeConte's Compend.

Economic Geology.

Second Term.—Required for Seniors in the Chemical Course and for Civil Engineers.

The characteristics of this study will be the minimum of the organic and the maximum of the inorganic side of Geology. Some of the chief topics treated will be: Common Rock and Vein Forming Minerals; Origin of Ore Deposits: Mining Terms and Methods; Coal, Petroleum, Natural Gas and Asphaltums; Building Stone, Cements, Clays and Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Sanitary Engineering.

Text-book: William's Applied Geology supplemented by lectures.

In addition to the above, a course of lectures on the Relation of Geology to Agriculture, is given in the series of Agricultural Lectures, which come during the winter months.

XVII. Deparment of Physics.

PROFESSOR PENCE.

The Department of Physics occupies two adjacent rooms on the east side, and in the basement, of the main college building. The lecture room is 18 ft. by 44 ft. and will comfortably seat fifty or more students. It has the necessary lecture table, with gas, water and drainage, and is arranged and fitted to be used at pleasure, as a dark room. The laboratory is 24 ft. by 30 ft. It is well furnished with tables, water, instruments for use in experimentation; and has twenty-four spaces at the tables for individual work. This Department,

though recently organized, is now well equipped for work. The rooms are the best fitted and furnished in the building. The following shows in brief the work in Physics.

SOPHOMORE YEAR.

First Term.—Lectures illustrated by experiments, with recitations one hour daily. This course embraces the subjects of General Properties of Matter, Dynamics, Heat, Electricity and Magnetism, Sound and Light, and is intended to give the student a general knowledge of physical phenomena, and of physical laws, and to prepare him for the practical work which accompanies and follows the course. Text-book: Gage's Physics.

(2) Physical Laboratory, one hour daily (for engineering students). Experiments in the subjects of the lecture course. Text-book: Gage's Laboratory Manual and Note Book.

Second Term.—Physical Laboratory, one and one-half hours daily. Experiments in the subjects of the lecture course. The students in engineering do not take this term's work. Text-book: Gage's Laboratory Manual and Note Book.

JUNIOR YEAR.

First Term.—Physical Laboratory, one hour daily. Lectures, recitations and experiments in Heat. Text-book: Balfour Stewart's Heat.

Second Term.—Physical Laboratory, one to two hours daily. Lectures, recitations and experiments in Electricity and Magnetism. Text-book: Stewart and Gee's Practical Physics. Vol. II.—Electricity and Magnetism.

In all laboratory work each student is furnished with necessary apparatus, and must keep a systematic record of all his work, giving data and results of each experiment. The work is both qualitative and quantitative.

Degrees.

The State College confers the degrees of—

Bachelor of Science (B. S.),
Bachelor of Arts (A. B.),
Bachelor of Agriculture (B. Agr.),
Bachelor of Civil Engineering (B. C. E.),
Bachelor of Mechanical Engineering (B. M. E.),
Bachelor of Pedagogy (B. Ped.),
Master of Science (M. S.),
Master of Arts (A. M.),
Master of Agriculture (M. Agr.),
Master of Civil Engineering (C. E.),
Master of Mechanical Engineering (M. E.).

To attain the Bachelor's degree, the applicant must have been a student of the College at least one session, and he must have passed the examination on all the courses of study leading to the desired degree.

To attain the Master's degree, the applicant must have attained the Bachelor's; he must have pursued, for at least one session in this College or two sessions elsewhere, a major study selected by himself and one or two minor studies assigned him by the Faculty; and finally he must, at least thirty days before the end of the session, have satisfied the Faculty that he is duly proficient in his studies and have presented to the College an acceptable thesis on his major study or on some part thereof.

If the applicant be an alumnus of another institution of learning, he must satisfy the Faculty that he has completed a course of study for his first degree equivalent to that prescribed in this College for the same degree; and he must matriculate and study under the direction of the Faculty at least one session.

Students that complete a part of the courses in a satisfactory manner, may in attestation of the fact receive Certificates of Proficiency.

Diplomas are given to those who complete the course of study in the Business College.

Grouping of Courses for Degrees.

I. Courses for the Degree of B. S.,

MAJOR STUDY, MATHEMATICS.

History, Political Economy and Metaphysics.	President Patterson.
Botany	Professor Mathews.
The English Language and Literature	Professor Shackleford.
Military Science	Capt. Swigert.
Chemistry	Professor Kastle.
Mathematics and Astronomy	Professor White, Dean
The French and German Languages	Professor Wernicke.
Zoology and Entomology	Professor Garman.
Anatomy and Physiology	Professor Pryor.
Geology and Palæontology	Professor Miller.
Physics	Professor Pence.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics or Physics may be selected as major study; and minor studies will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English History, Political Economy, Metaphysics, French and Germau.

TIME TABLE OF COURSES FOR THE DEGREE OF B. S. (Maj. Math.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Plane Geom.	Drawing.	Physiology.	Drill.	
	English.	Plane Trigonom.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geom.	German.	Physics.		Drill.	Botanical Laboratory.
	Analytic Geom.	German.	Botany.	Chemistry.	Drill.	Physical Laboratory.
Junior Year.	Zoology.	English.	French.	German.		Chemical Laboratory.
		English.	French.	German.		Zoological Laboratory.
Senior Year.	Mineralogy. Palæontology.	History.	Mental Philosophy.			
	Geology.	History. Polit. Economy.	Logic.	Astronomy.		

II. Courses for the Degree of B. S.,

MAJOR STUDY, CHEMISTRY.

History, Political Economy and Metaphysics. President Patterson.
Botany.....Professor Mathews.
The English Language and Literature.....Professor Shackleford.
Military Science .....Captain Swigert.
Chemistry.....Professor Kastle.
Mathematics.....Professor White, Dean.
The French and German Languages .....Professor Wernicke.
Zoology and Entomology .....Professor Garman.
Physiology.....Professor Pryor.
Geology .....Professor Miller.
Physics ....Professor Pence.

For the degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minors will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science French and German.

TIME TABLE OF COURSES FOR THE DEGREE OF B. S. (Maj. Chem.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:30 to 4 P. M.
FRESHMAN YEAR.	English.	Geometry.	French.	Physiology.	Military Science.	
	English.	Trigonometry.	Algebra.	Physiology.	Military Science.	
SOPHOMORE YEAR.	Solid Geometry.	German.	Physics.		Military Science.	Botany.
	Analytical Geometry.	German.	Botany.	Chemistry.	Military Science.	Physical Laboratory.
JUNIOR YEAR.	Zoology.	Zoology.	Calculus.	German.		Chemical Laboratory
	Zoology.	Theoretical Chemistry.	French	German.		Chemical Laborato y.
SENIOR YEAR.		History.	Mental Philosophy.	General Chemical Reading.		Chemical Laboratory.
		Political Economy.	Logic.	Economic Geology.		Chemical Thesis.

Course in Chemistry.

The Chemical Course has lately been established with the view to preparing the student for life work in the Science of Chemistry, and also with the view to fitting him for the study of medicine and kindred professions. To the accomplishment of this purpose the following course of study, extending over four years, has been adopted.

Studies Required.

The first year is devoted to the study of English, Mathematics, Algebra, Plane Geometry and Trigonometry, French and Physiology.

The second to Mathematics, Solid and Analytical Geometry, German, Chemistry, Botany and Physics.

The third year to Chemistry, theoretical and laboratory practice, Zoology, Geology, French and German, and Calculus.

The fourth year to Chemistry—advanced general reading, laboratory practice and original investigation, Economic Geology, History and Political Economy, Mental Philosophy and Logic.

The Training in Chemistry Proper.

The study in Chemistry proper, as outlined in the above, is sufficient in its scope to bring the student in close contact with the great fundamental truths of the Science, and to make him enthusiastic and capable in his profession

The course in General Chemistry, extending through the second five months of the second year, consists of lectures, laboratory work and recitations five times weekly on the non-metals and their compounds and the simpler laws of chemical change. The lectures are abundantly illustrated by suitable and instructive experiments; the laboratory work is carefully directed and the student receives every possible encouragement to do excellent work.

In the third year the study of Chemistry is resumed with laboratory work and Theoretical Chemistry. The study of Theoretical Chemistry, consisting of lectures, recitations and readings five times weekly during the second half year is intended to acquaint the student with the greatest generalizations and theories of modern chemistry and their historical development. In this connection fifty lectures will be delivered upon the following general topics: Ten upon the Atomic Theory, its development, and the methods at present used in the determination of atomic weights; fifteen upon the Compounds of Carbon, Isomerism and Structural Formulæ; ten upon the History of Chemistry; five upon the Periodic Law; five upon the Spectroscope, Spectrum Analysis, and the Chemistry of the Heavenly Bodies; five upon the more important current chemical investigations.

By way of supplementing the work of the lecturer, students pursuing this course will be required to do a certain, rather liberal, amount of general reading upon the matter treated of in the lectures

or upon such other topics as may be assigned by the instructor. For this purpose the nucleus of a chemical library has been formed, which may be freely consulted by any or all students in the College, and the leading chemical journals of this and other countries, will there be kept on file. The broadening influences of such a course can scarcely be overestimated, and students who complete it satisfactorily will find themselves, in some measure at least, abreast of the highest and best chemical thought of our time.

The laboratory work, during the first term of the third year, is devoted to the study of the metals, and their more important compounds, and qualitative analysis. This work is intended to supplement the work of the first year upon the non-metals, and also to familiarize the student more fully with the commoner methods of chemical manipulation and practice. The laboratory work of the first term will be followed up during the second with laboratory work in quantitative analysis, by means of which the student learns the value of precise and accurate work, and the constancy and definite character of chemical reactions. The chemical work of the last year will consist of such special work as the student may elect to pursue, together with the preparation of a thesis embodying the results of this special work. The object of such an arrangement is to perfect him in that particular branch of the science for which he shows a liking or a particular talent. In this connection it may be well to state that facilities are offered for special work along the following lines: Pure Chemistry, Organic Chemistry, Agricultural Chemistry, general analytical work, and special analytical work on fertilizers, iron and steel and fuels.

Chemistry Required in Other Courses.

Instruction in chemistry in other courses of study, such as the Scientific, Classical, etc., is designed to meet their special needs in this direction.

In the Classical Course, the study of this science extends over five months, five times weekly, and is intended simply to introduce the student to the subject by way of general education.

In the Scientific Course the work extends over ten months. A portion of this time is devoted to the study of the metals and qualitative analysis by means of laboratory work. In the course of Mechanical Engineering the instruction is adapted as completely as possible to the need of the students in this department. Instruction in chemistry in this course extends over a period of ten months: five of which are devoted to the study of the non-metals and their compounds; five to the chemistry of the metals with special reference to the properties which render them useful to the mechanician; and also with reference to their mode of occurence in nature and the methods of obtaining them from their ores.

For students in Civil Engineering a similar course has been provided, extending over ten months. The first five of these are devoted to the study of Elementary Chemistry, and the last five to the study of those substances used as building material: metals, alloys, and mineral substances which are used in construction.

For the benefit of students of Agriculture a special course in Agricultural Chemistry has been arranged, the general aim of which is to acquaint the student with the chemistry of those elements which enter into the composition of plants, and which are essential to their life and growth. A study of the composition of the soil, air and water, and their several relations to the plant as sources of plant-food, forms a large and important part of this work. Also the chemistry of tillage, irrigation and rotation, and the composition and value of commercial fertilizers and manures.

For students in Biology also, instruction in Chemistry is adapted as fully as possible to their needs. Instruction in this branch extends over ten months, five times weekly. The first half of this time is devoted to the study of Elementary Chemistry, this is followed by laboratory work in the afternoon upon those elements which are regarded as essential to living things, animal and vegetable. Chemistry also forms an important branch of study in the Veterinary Course. It extends over ten months and includes Elementary Chemistry together with such special study as the Director of this course may see fit to assign.

III. Courses For the Degree of B. S.,

MAJOR STUDY, BIOLOGY.

History, Political Economy and Metaphysics	President Patterson.
Botany	Professor Mathews.
The English Language and Literature	Professor Shackleford.
Military Science	Captain Swigert.
Chemistry	Professor Kastle.
Mathematics	Professor White, Dean.
The French and German Languages	Professor Wernicke.
Zoology and Entomology	Professor Garman.
Physiology	Professor Pryor.
Geology and Palæontology	Professor Miller.
Physics	Professor Pence.

For the degree of M. S., either Chemistry, Biology, Geology, Mathematics or Physics may be selected as major study; and minors will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science, French and German.

TIME TABLE OF COURSES FOR THE DEGREE OF B. S. (Maj. Biol.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
FRESHMAN YEAR.	English.	Plane Geometry	Algebra.	Physiology.	Drill.	
	English.	Plane Trigonometry.	Drawing.	Physiology.	Drill.	
SOPHOMORE YEAR.	Zoology.	Zoology.	Botany,	Botany.	Drill.	Chemistry, Laboratory
	Zoology.	Zoology.	Osteology.	Chemistry.	Drill.	Botany.
JUNIOR YEAR.	Mineralogy, Palæontology.	German.	French.	Botany.	Botany.	
	Geology.	German	French.	Botany.	Botany.	Physics, Laboratory.
SENIOR YEAR.	Embryology.	History.	Physics.	German.		
	Entomology.	Political Economy.	Logic.	German.		Thesis in Zoology or Botany.

Course in Biology.

The Course in Biology is designed for those who prefer an education with a foundation in the natural sciences. It is adapted especially to meet the wants of students who are looking toward a career as specialists in Biology, as teachers of natural science, and for those who intend to study medicine after completing college work. Two years of Zoology and Embryology, one term of Entomology, two years of Botany, one year of Anatomy and Physiology one year of Chemistry, one year of Geology, and one term of Physics, give character to the course. The other branches are offered as in one way or another accessory to the training and knowledge which these studies give. In the sciences of this course laboratory work is made prominent. Field work is done when the nature of the subject permits. Textbook and lecture are employed chiefly to elaborate the subjects and for fixing and explaining facts acquired.

Zoology.

During the Sophomore year two hours each day are given fo the study of this branch. The "type method" is employed each student being provided with written directions for the examination and dissection of examples of the chief groups of the animal kingdom. The study of these types constitutes the basis of the work in this line. During the year students are expected to acquire also an acquaintance with Systematic Zoology by the used of analytical keys and prepared specimens of birds and fishes. In the first term of the Junior year one hour each day is again given to Zoology, attention being confined to vertebrates. The work of this term serves as a preparation for the Embryology, which is studied during the first term of the Senior year. The Zoological Laboratory is now provided with the best of microscopes, microtomes, paraffine baths, and other appliances for practical work.

Entomology.

Special work in this branch of Zoology is provided for in the latter part of the Sophomore year. The sublect is taught by the use of types, which are dissected and examined with the aid of the microscope.

Botany.

For two years the student devotes two hours per day to the various divisions of this subject, with the option of an aditional term for original investigation as the basis of a graduating thesis

The work begins in the second term of the Freshman year in January, and is at first almost identical with that assigned to students in other courses; beginning with a study of seeds, their germination and development, followed by a critical study of the structure of a

typical mature plant and its most important modifications. This work is accompanied throughout by drawings and written descriptions of the various forms studied, thus constantly testing and developing the accuracy of the pupil's observative and descriptive powers.

As soon as the out-door plants begin to blossom the work is largely transferred to the field, and the remainder of the term is occupied mainly with the collection and analysis of the local flora

In the second term, beginning the Sophomore year, the work of collecting is continued and is accompanied by a careful study of the more difficult orders, such as Compositæ, gramineæ, and Cyperaceæ.

During the term topics for special study are assigned to each student, the results being presented to the class in the form of a short paper for criticism and inquiry. These topics include a wide range of subjects, such as a study of some special group of plants, some plants of economic value, subjects in plant physiology, etc.

The third term is occupied mainly with work in microscopy, including Histology and a study of the best known groups of the lower cryptogâms.

During the fourth term the work of the student is assigned with reference to his individual tastes and requirements, and is intended to be a continuation of some subjects commenced in the earlier parts of his course, such as Plant Physiology, Systematic Botany Histology, Officinal Plants or Cryptogamic Botany.

Anatomy and Physiology.

The facilities provided for the study of Anatomy and Physiology are excellent. This department is well supplied with models, charts, skeletons, microscopes, etc

To those having in view a professional career, and especially those contemplating the study of medicine and surgery, the instruction received in these branches will be of great value. Taken in connection with the other subjects, which with it make up the Biological course, a good foundation is laid for students intending to devote themselves hereafter to the study of medicine.

Hygiene and preventive medicine are taking such high rank, that it becomes the duty of all to make themselves familiar with physiological anatomy and the essentials of physiology.

Courses for the Degree of A. B.,

MAJOR STUDIES, GREEK AND LATIN.

History, Political Economy and Metaphysics	President Patterson.
The English Language and Literature	Professor Shackleford.
Military Science	Captain Swigert.
Chemistry	Professor Kastle.
Mathematics and Astronomy	Professor White.
The French and German Languages	Professor Wernicke.
The Greek and Latin Languages	Professor Neville, Dean. Asst. Prof. Blanton.
Physiology	Professor Pryor.
Physiography	Professor Miller.

For the degree of A. M., either Greek, Latin, English, History, Mental Science, French or German, may be selected as major study; and minors will be assigned from Greek, Latin, English, Mathematics, History, Mental Science, Political Economy, French and German.

TIME TABLE OF COURSES FOR THE DEGREE OF A. B.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
FRESHMAN YEAR.	English.	Greek or German	Physiology.	Latin.	Drill.	
	English.	Greek or German.	Algebra.	Latin.	Drill.	
SOPHOMORE YEAR.	Latin.	Plane Geometry.	Greek.		Drill.	
	Latin.	Plane Trigonometry.	Greek.	Chemistry.	Drill.	
JUNIOR YEAR.	Solid Geometry.	English.	French.	Greek or German.		
	Analytical Geometry.	English.	French.	Greek or German		
SENIOR YEAR.	French.	History.	Mental Philosophy.			Physiography.
	French.	Political Economy.	Logic.	Astronomy		

Courses for the Degree of B. Ped.,

MAJOR STUDY, PEDAGOGY.

History, Political Economy and Metaphysics	President Patterson.
Botany and Horticulture	Professor Mathews.
The English Language and Literature	Professor Shackleford.
Military Science	Captain Swigert.
Chemistry	Professor Kastle.
Mathematics and Astronomy	Professor White.
The Greek and Latin Languages	Professor Neville.
Pedagogy	Professor Roark, Dean. Assist. Prof. Newman.
Zoology and Entomology	Professor Garman.
Anatomy and Physiology	Professor Pryor.
Geology and Palæontology	Professor Miller.
Physics	Professor Pence.

TIME TABLE OF COURSES FOR THE DEGREE OF B. PED.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
FRESHMAN YEAR.	English Literature.	Plane Geometry	Drawing.	Physiology.	Drill.	
	English Literature.	Plane Trigonometry.	Algebra.	Physiology.	Drill.	
SOPHOMORE YEAR.	Solid Geometry.	Virgil.	Physics.		Drill.	Botanical Laboratory.
	Analytical Geometry.	Cicero.	Botany.	Chemistry.	Drill.	Physical Laboratory.
JUNIOR YEAR.	Zoology.		Horace.			Chemical Laboratory.
	Tacitus. Juvenal.		Educational Psychology.			Zoological Laboratory.
SENIOR YEAR.	Mineralogy, Palæontology.	History.	Mental Philosophy.	School Economy Methods.		
	Geology.	History and Political Economy.	Logic, Astronomy, Moral Philosophy.	School Economy, History of Education.		

TIME TABLE OF COURSES FOR THE STATE DIPLOMA:

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	At other Hours.
ONE YEAR.	Latin.	Plane Geometry.	Psychology.	Physics.	Drill.	Forensics.
	English Literature.	Advanced Arithmetic	Advanced Algebra.	Latin.	Drill.	Forensics, Pedagogy.

TIME TABLE OF COURSES FOR THE COUNTY CERTIFICATE.

FIVE MOS.	Arithmetic or Grammar.	Geography or Composition.	Civics or Orthography.	U. S. History.	Drill.	Forensics.
TEN WEEKS.	Arithmetic or Composition.	Higher Arithmetic or Grammar.	Geography or Physiology.	Civics.	Drill.	Forensics.
	Ky. History, or Grammar.	Higher Arithmetic or Composition.	Geography or Physiology.	U. S. History.	Drill.	Forensics. Pedagogy.

TIME TABLE OF COURSES FOR THE STATE CERTIFICATE.

SECOND FIVE MOS.	English Literature.	Higher Arithmetic.	Psychology.	Algebra.	Drill.	Forensics Pedagogy.

Courses in Pedagogy.

The teacher must be possessed of three things in addition to an upright and sterling character and a healthy body. These three things are: (1) An adequate knowledge of what he proposes to teach; (2) skill in teaching—knowledge of how to teach; (3) some broad and liberal culture wherewith to illuminate his work and increase its value. These three things it is the business of the Teacher's Training School to give.

1. *An adequate knowledge of the branches to be taught.*—The giving of this knowledge is academic work, primarily. But this academic instruction should be given with the fact constantly in view that "The student will teach as he is taught, rather than as he is taught to teach." The instruction in Arithmetic, Physiology, Grammar, etc., is designed to illustrate to the teacher-pupils in the various classes the latest and best methods of teaching these subjects.

2. *Skill in teaching—the knowledge how to teach.*—This can be acquired best by successful practice, but there is a science as well as an art of teaching. Teaching must not be wholly empirical. There are fundamental principles upon which all true teaching rests, and the purpose here is to fix these principles in the minds of the pupils. It is the carrying out of these principles, their successful and practical application, that lifts the work of the teacher to the dignity of a profession. It is the direct inculcation of these principles and the practical drill in their application that distinguish the Teacher's Training School from all other schools. The Teacher's Training School should work in the faith that teaching is the highest profession, and the atmosphere of such a school should be filled with the professional spirit.

Since the principles of the science of education rest on the activities and processes of the growing mind, special attention is given to Educational Psychology. A study of this subject is followed by a thorough drill in School Management and the most rational and effective Educational Methods. The principles of management and methods are constantly presented in their relations to the principles of Psycholgy. Finally, the student is introduced to the history of his profession abroad and at home. The professional course proper, then, consists of Educational Psychology, Management in Education, Method in Education and the History of Education

3. *Some broad and liberal culture.*—He who knows only the subjects he has to teach and something of how to teach them is not yet a teacher. He must know as much more as he can; must have some knowledge of subjects higher than the branches he will be called on to teach, and different from them. Human knowledge is so interrelated that otherwise he cannot have the copiousness of illustration necessary to make the simplest and commonest facts as clear as they

should be. The relations of facts must be taught—hence the growing need of liberal culture, a widened horizon, for the teacher.

The courses offered in this department are believed to be such as will meet the requirements above set forth, and also satisfy the practical needs of the educational system of the State.

The Professional Course leading to the degree of B. Ped. (Bachelor of Pedagogy), is intended to cultivate the professional spirit, to give a general education, and to fully equip those who complete it for teaching successfully in any grade of public school, or in any academy or college.

The Preparatory Course is identical with the work of the Academy and fits the student to enter the full Professional Course of the Normal Department.

The State Diploma Course is arranged to enable those teachers who have the age and experience required by the school law, and who already hold a State certificate, or are otherwise properly qualified for taking the course, to prepare by one year's work to pass successfully the examination for State Diploma.

The State Certificate Course is open to those who have the legal qualifications of age and experience, and who hold first class, or high grade second class, county certificates, or are otherwise prepared to undertake the work of this course. The aim is to fit such students to take successfully the examination for State certificate. The time required is five months, *beginning in mid-winter.*

The County Certificate Course is designed to prepare teachers for the county schools of the State. Preparations for properly passing the county examination may be made in one year or in five months, according to the previous preparation of the matriculate. By far the larger number of those who take this course enter it after the Holidays. The second term is divided into two terms of ten weeks each, and thus teachers can review all the common branches during the second half year.

It will be seen upon reference to the schedules, pp. 44, 45, that Drill work in Forensics, *i. e.*, in essay writing, speaking and debating, is required in all the normal courses. Ability to express fluently and correctly is of the utmost value to the teacher, and can be gained only by constant practice. The Forensic Drills will occur once a week, with special exercises once or twice each term.

The Pedagogy Drill will occur daily during the last quarter of each year, and is intended to give valuable training in the Science of Teaching.

IV. Courses for the Degree of B. C. E.,

MAJOR STUDY, CIVIL ENGINEERING.

History and Political Economy.....President Patterson.
The English Language and Literature.....Professor Shackleford.
Military Science.....Captain Swigert.
Chemistry.....Professor Kastle.
Mathematics and Astronomy.....Professor White.
Civil Engineering.....Professor Nelson, Dean.
Mechanical Engineering.....Professor Anderson.
Physics.....Professor Pence.

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For the degree of C. E. either Railways, Structures, Regimen of Streams, Canals and Water Power, Municipal or Mining Engineering, Sanitation, Topographical, Geodetic and Hydrographical Surveys, or Architectural Engineering may be seclected as major study; and minors will be assigned from Mathematics, Astronomy, Mechanical Engineering, Geology, Chemistry, Physics, Political Economy, English, French and German.

TIME TABLE OF COURSES FOR THE DEGREE OF B. C. E.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
FRESHMAN YEAR.	English.	Plane Geometry.	Draughting.	Draughting.	Drill.	Fieldwork Draughting.
	English.	Plane Trigonometry.	Plane Surveying.	Topographical Drawing.	Drill.	Fieldwork Draughting.
SOPHOMORE YEAR.	Solid Geometry, Algebra.	Railway Location.	Physics.	Physical Laboratory.	Drill.	Fieldwork Draughting.
	Analytical Geometry.	Descriptive Geometry.	Structural Designs.	Chemistry.	Drill.	Fieldwork Draughting.
JUNIOR YEAR.	Railways, Other Highways.	Graphical Statics.	Calculus.	Advanced Surveying.		Structural Draughting
	Electricity, Magnetism.	Strength of Materials.	Economic Geology	Analytical Mechanics		Architectural Draughting.
SENIOR YEAR.	Bridges and Structures.	History.	Hydraul. Engineering. Architecture.	Sanitary Engineering. Architecture.		Designing Structures.
	Stereotomy Mining.	Political Economy.	Geodesy Least Squares.	Astronomy.		Thesis.

Courses in Civil Engineering.

This course comprises primarily, the study of the subjects necessary to fit students for the practice of this profession in any of its branches; and secondarily, the study, so far as is possible, of such other subjects as belong to a liberal education.

Applicants for this Degree are required to pass a satisfactory examination on all the subjects comprised in the course; to attend all of the classes in at least the Junior and Senior years, and to comply with the other rules of the College.

The course of study occupies four years. Students are not admitted to advance classes unless they show, after proper examination, that they are amply prepared for this privilege.

The theory of Engineering Work is taught by text-books and lectures, and the practical application of the theory is exemplified by practical work in the field and draughting-room, and by the study of model structures.

The work in the draughting-room consists of the making of maps, according to actual surveys and after topographical methods. Railway appliances are studied from the most approved designs, and working drawings are made of these. When the design of structures, such as bridges, roofs, roundhouses, etc., is under consideration, detailed drawings are made, so that students may learn the best methods followed in actual practice. Through the kindness of such bridge builders as the King Bridge Co., the Edge-Moor Bridge Co., the Phoenix Bridge Co., and the Union Bridge Co , specimen drawings of structures erected by them, are furnished for study.

The subjects of Chemistry and Geology are taught with especial reference to their economic value to the practical engineer.

The work of a civil engineer may properly be the charge of the building and handling of railways, both steam and electric; highways of all kinds; bridges and all other structures; surveying in the simple branches of land measurement and in the higher work of geodetic and map surveys, including surveys by astronomical observations; Municipal Engineering in all of its important branches, and the location and economic opening of mines. This course of study is designed to prepare its gradnates for the proper handling of all such work.

In addition to the purely technical subjects with which a civil engineer must be familiar, the course provides for the study of English Literature, History and Political Economy.

The practical knowledge of materials used in structures is provided for by a course of work in the Mechanical Laboratory in connection with the study of the theory of working in wood, iron and steel.

Practical use of the instruments belonging to this profession is taught by work in the field, including land surveying, railrwav location, triangulation and observation with the solar transit for latitude,

time and true mer'dian. Methods for finding longitude and latitude are practiced. This practical work includes the use of Compass, Transit, with solar attachment, Level, Plane Table, Aneroid Barometer and other instruments, all of which are furnished by the College.

To those who desire it and who are properly prepared, opportunity will be offered for the study of advanced classes in any of the subjects forming a part of this course. To Post-Graduates such an opportunity offers a means for extended study of the application of the Infinitesimal Analysis to problems in mechanics.

Courses for the Degree of B. M. E.,

MAJOR STUDY, MECHANICAL ENGINEERING.

History and Political Economy	President Patterson.
The English Language and Literature	Professor Shackleford.
Military Science	Captain Swigert.
Chemistry	Professor Kastle.
Mathematics	Professor White.
Mechanical Engineering	Professor Anderson, Dean. Assistant Professor Wells.
Shopwork and Drawing	Instructor Johnson.
Physics	Professor Pence.

For the degree of M. E. either Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, or Machine Designing may be selected as major study; and minor studies will be assigned from Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, Machine Designing, Mechanical Laboratory Work, Mathematics, Physics, Chemistry, Mental Science, Political Science, English and Modern Languages.

TIME TABLE OF COURSES FOR THE DEGREE OF B. M. E.

		First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:45—5 P. M.
Freshman Year.	1st Term.	English.	Plane Geometry.	Mechanical Drawing.	Wood Working Tools, Mechanical Drawing.	Military Science.	Shop Work in Wood, Bench and Lathe.
	2d Term.	English.	Plane Trigonometry.	Mechanical Drawing.	Theory of Pattern Making and Foundry Practice.	Military Science.	Pattern Making Foundry.
Sophomore Year.	1st Term.	Solid Geometry, Algebra.	Mechanical Drawing.	Physics.	Physical Laboratory.	Military Science.	Iron and Steel Forging.
	2d Term.	Analytical Geometry.	Descriptive Geometry.	Elementary Designing.	Chemistry.	Military Science.	Vise Work in Metal, Machine Work.
Junior Year.	1st Term.	Heat	Kinematics.	Calculus.	Machine Design.	Machine Design.	Chemical Laboratory, Machine Design.
	2d Term.	Magnetism. and Electricity.	Strength of Materials.	Metallurgy.	Analytical Mechanics.	Machine Design.	Advanced Work in Physical Laboratory, Machine Design.
Senior Year.	1st Term.	Thermodynamics.	History.	Steam Boilers. Transmission of Power.	Valve Gearing.	Theory and Practice of Photography.	Valve and Engine Designing.
	2d Term.	Engine Design.	History and Political Economy.	Dynamometers and Measurement of Power. Dynamo Electric Machinery.	Experimental Work; Engine, Boiler, Belt and Materials of Construction Tests.	Experimental Work; Engine, Boiler, Belt and Materials of Construction Tests.	Thesis Work.

Course in Mechanical Engineering.

The training given in this course, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in mechanical engineering work. The practical work extends over a period of two years and includes the most important principles and operations in bench work in wood, wood-turning, pattern-making, foundry work, iron and steel forging, and hand and machine work in metal.

The theoretical work during the first two years consists of a thorough training in English, Chemistry, Mathematics, Physics and Drawing, and during the last two years, the fundamental principles of boiler, machine and engine design are taken up. By a careful solution of practical problems, the student becomes familiar with the process carried on by the operators and designers of successful machine plants.

The course in Mechanical Engineering involves three separate lines of work:

1 *Steam engineering*, the object of which is to give that training necessary to fit men to be operators and designers of steam machinery.

2. *Chemical engineering*, intended especially to give the knowledge requisite for the successful operation of iron and steel plants and the analysis of iron, steel, coals and refractory substances.

3. *Electrical engineering*, in which the theory, design, building and operation of dynamos and motors are predominant.

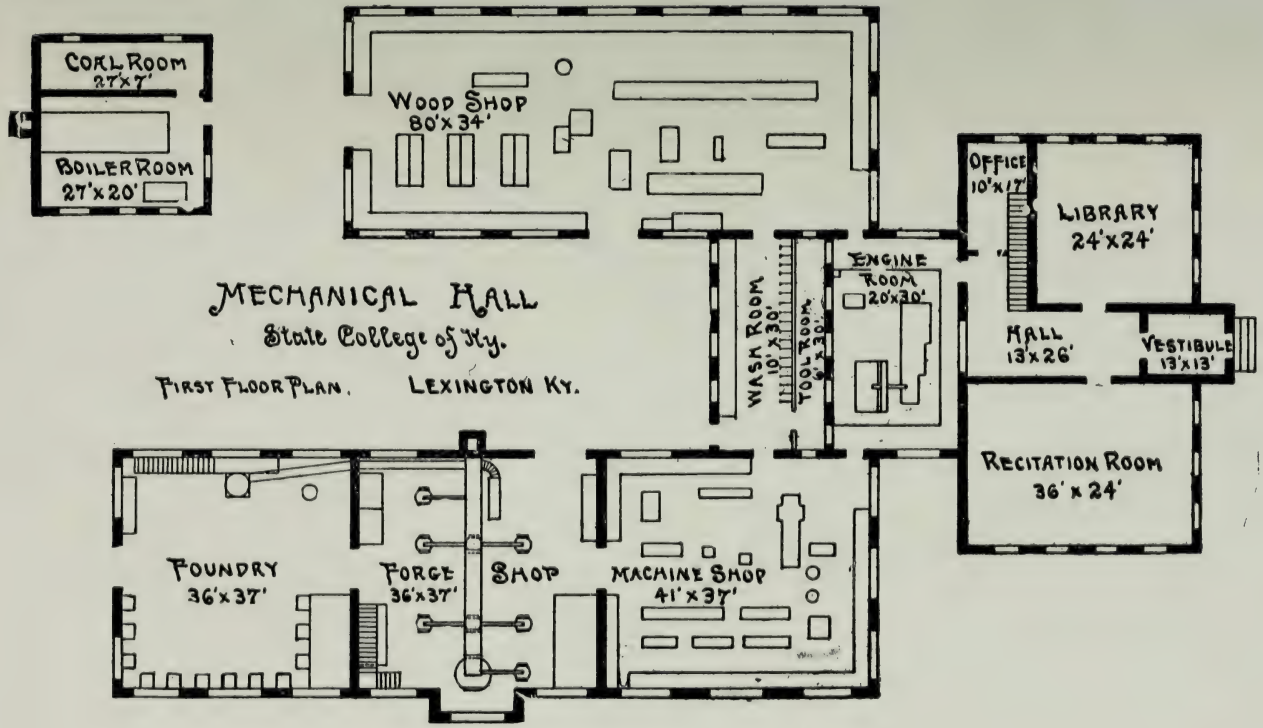
During the Freshman and Sophomore years the work for all students in the Mechanical Engineering Course is identical, but during the Junior and Senior years a student is granted the privilege of electing one of the three lines of work indicated above.

The course of study in Mechanical Engineering extending over a period of four years leads to the Degree B. M. E. (Bachelor of Mechanical Engineering). The advanced Degree of Mechanical Engineer may be obtained by resident students in one year after taking the degree of B. M. E from the State College of Kentucky or any other institution of equal requirements, they having successfully carried on work laid down, passed a satisfactory examination, and presented an acceptable thesis. The advanced degree may also be taken in three years after obtaining the Degree of B. M. E., provided the student has been engaged during the period of three years in practical engineering work, passes a satisfactory examination at the College and presents an acceptable thesis.

Freshman Year.

Technical Instruction—Twenty-six weeks, three hours per week. (*a*). Recitations on the forms of wood-working tools, and the cutting and

MECHANICAL HALL.



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State College of Ky.

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peculiarities of timber. (*b*). Lectures on the operation of the various forms of wood-working machinery. (*c*). Lectures on pattern making, molding and casting.

Mechanical Drawing—Twenty-six weeks, six hours a week, and ten weeks, ten hours a week. This drawing includes free-hand sketches, drawing from copies and model, using parts of machines in the Mechanical Laboratories as models.

Shopwork—Thirty-six weeks, twelve hours a week. (*a*). Bench work in wood, including exercises in the following operations: Planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenter's tools. (*b*). Wood turning, involving the various principles of lathe-work in wood. (*c*). Pattern-making, which gives the student discipline in the construction of patterns for foundry work. (*d*). Foundry work, including the various operations of molding, core making, and the melting of iron and brass.

English—Thirty-six weeks, five hours per week.

Algebra—Twelve weeks, five hours per week

Geometry—Seventeen weeks, five hours per week.

Trigonometry—Nineteen weeks, five hours per week.

Sophomore Year.

Technical Instruction.—Sixteen weeks, one hour per week. (*a*). Lectures on the handling of iron and steel in forging, and the methods of tempering and annealing steel. (*b*). Lectures on modern machine-shop practice.

Mechanical Drawing.—Sixteen weeks, four hours per week; thirty-six weeks, five hours per week. (*a*). Drawing the parts of machines and complete machines to scale. (*b*). Exercises in tinting and shading.

Shopwork.—Thirty six weeks, twelve hours per week. (*a*). Exercises in iron and steel forging. (*b*). Exercises in vise-work in metal (*c*). General machine work, including screw-cutting, drilling, planing and the milling of iron, brass and steel.

Descriptive Geometry.—Nineteen weeks five hours per week.

Physics.—Seventeen weeks, ten hours per week.

Solid Geometry.—Seventeen weeks, five hours per week.

Analytical Geometry.—Nineteen weeks, five hours per week.

Chemistry.—Nineteen weeks, five hours per week.

Junior Year.

Kinematics.—Seventeen weeks, five hours per week. Under this head are studied the velocity ratios in various motions, construction of gears cams, quick return motions, straight line motions, epicyclic trains, parallel motions, and the manner of designing trains of mechanism.

Mechanical Drawing, Thirty-six weeks, six hours per week. The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines used in actual construction in the laboratories.

Metallurgy. Twelve weeks, six hours per week. The above includes the study of fuels and refractory substances, and the process employed in puddling iron and making steel.

Chemical Laboratory.—Seventeen weeks, six hours per week.

Analytical Mechanics.—Nineteen weeks, five hours per week.

Strength of Materials.—Nineteen weeks, five hours per week.

Heat.—Seventeen weeks, five hours per week.

Physical Laboratory.—Seventeen weeks, six hours per week.

Chemistry.—Twenty-four weeks, five hours per week.

Magnetism and Electricity.—Nineteen weeks, five hours per week.

Senior Year.

Thermodynamics.—Twenty-six weeks, six hours per week. This work consists of a study of the laws of thermodynamics thermal capacities, and the application of thermodynamics to the steam engine.

Steam Boilers.—Seventeen weeks, five hours per week. A study of the various commercial steam boilers, consumption of fuel, incrustation, determining the horse power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of power transmission.

Valve Gearing.—Seventeen weeks, five hours per week. The study of various forms of standard engine valves and methods of designing.

Mechanical Drawing.—Seventeen weeks, ten hours per week. This consists in working out practical designs of boilers and steam engine valves.

Engine and Machine Design.—Fifteen weeks, five hours per week. A study of the modern methods of designing engines and machines for strength as well as motion.

Experimental Engineering.—Fifteen weeks, ten hours per week Includes a study of the steam engine indicator, making engine, boiler, belt, and materials for construction tests.

Political Economy.—Fifteen weeks, five hours per week.

Theory and Practice of Photography.—Seventeen weeks, five hours per week.

Dynamo-Electric Machinery.—Nineteen weeks, five hours per week.

History.—Twenty weeks, five hours per week.

Dynamometers and Measurement of Power.—Twelve weeks, five hours per week.

Thesis Work.—Nineteen weeks, twelve hours per week.

Every student, before he attains the degree of B. M. E., must present a satisfactory thesis on some new design of a machine, or an original investigation.

The greater part of the second term of the Senior Year is given to the preparing of this thesis. The subjects for theses are assigned to students by the Professor of Mechanical Engineering, and the completed theses are kept on file with the college records, that they may serve as a reference for future investigators.

III. Courses for the Degree of B. Agr.,

MAJOR STUDIES, AGRICULTURE, HORTICULTURE AND BOTANY.

History, Political Economy and Metaphysics.....President Patterson.
Agriculture, Horticulture and Botany.....Professor Mathews.
The English Language and Literature.....Professor Shackleford.
Military Science.....Captain Swigert.
Chemistry.....Professor Kastle.
Mathematics and Astronomy.....Professor White.
The French and German Languages.....Professor Wernicke.
Zoology and Entomology.....Professor Garman.
Anatomy and Physiology.....Professor Pryor.
Geology and Palæontology.....Professor Miller.
Physics.....Professor Pence.

For the degree of M. Agr., either Agricultural Chemistry, Horticulture, Entomology. Economic Botany or Veterinary Science, may be selected as major study: and minors will be assigned from Agricultural Chemistry, Horticulture, Entomology, Zoology, Geology, Botany and Veterinary Science.

TIME TABLE OF COURSES FOR THE DEGREE OF B. Agr.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
FRESHMAN YEAR.	English Literature.	Plane Geometry.	Drawing.	Physiology. (a)	Drill. (a)	
	English Literature (b)	Plane Trigonometry.	Algebra.	Physiology.	Drill. (a)	
SOPHOMORE YEAR	Zoology. (a)	Zoology. (a)	Physics. (a)	Botany. (b)	Drill. (a)	Botanical Laboratory. (a)
	Zoology.	Zoology. (a)	Botany. (a)	Chemistry. (a)	Drill. (b)	Wood Work, Forging, &c. (b)
JUNIOR YEAR.	Agricultural Chemistry (b)	Botany.	French.	Botany.		Chemical Laboratory.
	Entomology. (a)	Botany.	French.	Stock Breeding, Feeding, Dairying. (b)		Horticulture (a)
SENIOR YEAR.	Mineralogy. Palæontology.	Soils, Draining, Fertilizers. (b)	Veterinary Science. (b)			Horticulture. (b)
	Geology.	Political Economy. (b)	Veterinary Science. (b)	Thesis.		

Students who can not take the regular course are advised to take a two years' course, the studies of the first year being those marked (*a*) in the above table, those of the second year being marked (*b*).

Course in Agriculture.

The distinctive feature of the Agricultural Course is the instruction in those branches of study which bear the most direct and practical relation to agricultural pursuits. It includes as subjects of primary importance the study of General and Agricultural Chemistry, General Zoology and Entomology, Botany, Horticulture, Geology General Agriculture, Veterinary Science, Woodwork and Forging.

In addition to these subjects the student devotes considerable time to the general work of other departments, including a year each in English and Mathematics, courses in Drawing, French, Physiology, Physics, Political Economy and Logic.

Agriculture.

The subject is taught by means of text-books and lectures, using as illustration the work of the farm, garden and greenhouse, all of which are fully equipped and in active operation. The first term is devoted to the subject of Soils, their origin, character and cultivation, Draining and Irrigation, Fertilizers, Farm Economy, etc. The second term is occupied with the subject of Breeds of Stock, Principles of Breeding and Feeding, and Milk, including its production and manufacture into the various dairy products.

For the study of Stock Breeding and kindred subjects, the location of the College is exceptionably favorable, being situated in the center of the far-famed Blue Grass region of Kentucky, with its numerous herds of high bred cattle and horses. In the entire work of this course material aid is rendered the student by the important experiments of the State Experiment Station, which are at all times available for observation and study.

Horticulture

The work in this Department begins in January of the Junior year and extends through two terms or an entire calendar year.

The time allotted to the subject is divided between lectures, recitations and actual practice in horticultural operations, special prominence being given to the latter feature of the course.

In the lectures are discussed the principles underlying horticultural practices; the propagation of plants; the physiological considerations upon which are based the operations of budding, grafting, pruning, training, &c.; greenhouses; their construction, heating and management, and vegetable, fruit and landscape gardening. In connection with the lectures, the work in the greenhouses, and upon the College and experimental grounds, is freely used for illustrative purposes, and occasional visits are made to the greenhouses, nurseries, market and fruit gardens, and the canning factory, all of which are well represented in or near Lexington.

The Department of Horticulture of the Experiment Station now has a large variety of orchard and small fruits growing upon the College farm, and the new and improved varieties are each year added as they are introduced. An extensive list of vegetables is also grown each year, and these with the experiments constantly in progress are always available for purposes of instruction.

In the practical part of his studies, the pupil is not only taught the best methods of doing his work, but is encouraged to seek for the principles which make such methods best.

He performs for himself the various operations of seed testing and seed sowing; propagating by cutting, layering, division, etc.; budding grafting, crossing, hybridizing, and other forms of horticultural practice.

In order to make this work of the greatest value to the student, he is required throughout the course to make accurate observations and careful notes upon his progress and the results of all these processes.

Botany.

This subject is studied for three terms of the course, the instruction taking the form mainly of guidance of the student in laboratory and field work, and it is the constant effort of the instructor to make the work as interesting and practical as possible. It begins in September of the Sophomore year with a study of the common seeds of the garden. These are sown by the student and the plantlet is carefully studied, and drawings are made in all stages of its development. The work is continued with a study of buds, roots and stems with their modifications, and the structure of all parts of the mature plant. The next term beginning in January, is devoted almost wholly to Economic Botany, including the study of common weeds and grasses; the most important plants used as food, medicine, or in the arts; and forestry.

The third term, beginning in September of the Junior year, is occupied with the subjects of Vegetable Histology and Cryptogamic Botany, especially the fungi injurious to field and garden crops. Each student is supplied with a compound microscope and other necessary appliances of histological study. While engaged with fungus diseases of plants, special attention is given to the practical methods of combating them.

Zoology.

Two hours are given each day during the Sophomore year to the study of Zoology, laboratory work, recitation and lecture, alternating according to the requirements of the class. Typical examples of each sub-kingdom of invertebrate animals are studied in the laboratory, practice in dissection, comparison, description and sketching

being given, together with a working knowledge of the compound microscope. Systematic Zoology is taught at the close of the year by the use of analytical keys and prepared specimens of birds and fishes.

Economic Entomology.

In entomology the student is required to make careful examination and dissection of examples of the more important orders of insects, his knowledge of structure and classification being made as far as possible practical in character. With this knowledge as a foundation, he is expected to familiarize himself with the stages of the common insects, by a study of living and prepared specimens, until he can recognize them at sight when met in the field or garden. Brief accounts of the life-histories of the more injurious species are supplied each student to be used in connection with laboratory and field work. During the term a small collection of insects is prepared and classified by each pupil. The term's work is completed by instruction in methods of preparing and using insecticides.

Chemistry.

In order to meet the needs of the students in agriculture, the following course in chemistry has been arranged. During the second term of the Sophomore year the course consists of lectures and recitations, five hours weekly, upon the chemistry of the non-metals, together with such portions of chemical theory as are absolutely necessary for a thorough understanding of the work in hand.

The laboratory work during the first term of the Junior year may be regarded as a continuation of the work indicated above, and is intended in the first place, to familiarize the students with the general principles of chemical manipulation, and the use of the simple forms of chemical apparatus; secondly, to give him a fairly accurate knowledge at first hand, of the occurrence, preparation, properties, and uses of the more common metallic elements and compounds. In this connection instruction is given in the methods employed in the separation and recognition of such elements and compounds as pertain directly to plant nutrition and growth. The laboratory work is followed by a special course in Agricultural Chemistry proper. This consists of lectures and recitations five hours weekly throughout the second term of the Junior year. Its general aim is to thoroughly acquaint the student with the composition of the soil, the atmosphere and water, and their relations to the plant as sources of plant food.

The chemistry of tillage, irrigation and rotation is fully discussed, together with the methods employed is determining the composition and value of commercial fertilizers and manures.

Veterinary Science.

Agricultural students are required to take Veterinary Anatomy five hours a week dnring the Senior year. Students in this Department may attend the Clinic, should they desire to do so.

The Department is amply equipped with instruments, apparatus, etc., for the performance of all operations and the treatment of all diseases. The Library also cantains a choice collection of Veterinary works, which will be open to Agricultural students at all times.

Wood Working and Forging.

The course in Shopwork is intended to give young men such a training in the use of carpenter's bench tools, and in iron and steel forging, that they will be able to make any ordinary repairs about a farm, in either iron or wood.

Student Labor.

Students holding certificates as county appointees have the privilege of working for pay upon the College farm and gardens during the afternoons and Saturdays, when such labor does not interfere with instruction in class room and field. In the opportunities for compensated labor upon the grounds, preference will be given the students of the Agricultural Course, and their hours for study will be so arranged as to aid them as far as practicable in their efforts for self-support. It cannot be expected, however, that the average student, having only unskilled labor to offer, will be able to pay the entire expenses of his college course by this means. The maximum compensation for ordinary labor is eight cents per hour; for skilled labor, ten cents, may, by special contract, be paid.

Special Course in Agriculture.

(Two years, not leading to a degree).

It is believed that there is a considerable number of farmers' sons who, on account of lack of time or means, would hesitate to undertake a full college course of four years, who would yet be glad of an opportunity to gain the benefits of a two year's course Candidates for this course must be at least eighteen years of age. While it is believed that an earnest and somewhat mature student can spend two such years very profitably, every young man entering the course is urged to begin the full course of four years if there is any possibility of completing it.

It is often the case that a student earnestly desiring a thorough education will discover some means of finishing a complete course when at first it seemed impracticable.

A Special Course of Agricultural Lectures.

All male students are required to attend during part of one school year a course of lectures upon subjects bearing upon Agriculture. The course is intended as a means of disseminating a knowledge of and arousing an interest in Agriculture as an art, and is also designed to meet the wants of students who can remain at the College but a short time and wish while here to get as much instruction in the line of Agriculture as possible. The course begins in January and terminates in March, a lecture being delivered on Monday, Wednesday and Friday of each week. During the past year the course consisted of thirty lectures on the following subjects; Agricultural, Chemistry, Dairying, Economic Entomology, Farm Animals, Fertilizers, Horticulture, Geology as related to Agriculture, Plant Life on the farm.

Courses for the Certificate in Veterinary Science.

History, Political Economy and Metaphysics.....President Patterson.
Horticultnre and Botany.....Professor Mathews.
The English Language and Literature.....Professor Shackleford.
Chemistry.....Professor Kastle.
Zoology and Entomology.....Professor Garman.
Anatomy and Physiology.....Professor Pryor.
Veterinary Science.....Professor Bennett.

TIME TABLE OF COURSES FOR THE CERTIFICATE IN V. S.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.		Afternoon.
FIRST YEAR.	English.	Anatomy.	Chemistry.	Physiology.	Drill.		Laboratory.
	English.	Anatomy.	Chemistry.	Physiology.	Drill.		Labora'ory.
SECOND YEAR.	Zoology	Surgery.	Horse Shoeing.	Pathology.	Clinic.		Laboratory.
	Zoology.	Obstetrics.	Materia Medica.	Pathology.	Clinic.		Laboratory.

Course in Veterinary Science.

The course in Veterinary Medicine has been arranged to extend through two years, during which time thorough instruction is given in all the more important branches of this science. During the first year students take up the study of anatomy and physiology of the domesticated animals. Instruction in these branches is given by means of lectures, recitations and laboratory work. In the laboratory students are required to spend as much time as possible preparing specimens and dissecting. First year students are also required to take Chemistry, Botany and Histology. The first of these three is taught by means of lectures, recitations and laboratory work, special attention being given to chemistry in its relations to medicine. Botany is taught during the second term of the first year. Histology is taught throughout the course by means of lectures and laboratory work. Students are required to work with the microscope and become thoroughly familiar with the structure of the various tissues and organs found in the animal body. During the second year the student takes up the more advanced branches relating to Veterinary Science, such as Pathology, Therapeutics Obstetrics, Horse-shoeing, Surgical diseases and operations, Materia Medica, Stock Breeding, the care of animals, etc. The first two branches are taught by means of lectures. Pathological specimens are shown as the occasion demands. Obstetrics is taught by means of lectures, recitations and demonstrations. Horse shoeing is taught by means of lectures and practical work. The various diseases of the feet are discussed, also faulty formations, and the best form of shoe and treatment to remedy these defects. Surgical diseases and operations, as a branch of veterinary medicine, are taught by means of lectures and illustrations. Instruction is given in preparing and securing animals for operations, in the use of instruments, the treatment of wounds, fractures, luxations, etc. Materia Medica is taught by lectures. During the course of instruction, the various articles of Materia Medica are shown and their actions and uses fully discussed. Stock breeding is taught by means of lectures, students having unsurpassed advantages in this branch owing to the great number of famous stock farms in the immediate vicinity of the school. During the course of study, lectures are also given upon the diseases of the dog, their causes, prevention and treatment. Throughout the entire course in Veterinary Medicine, students are required to attend the clinic which is held daily. Students who complete this course satisfactorily receive the Certificate of Proficiency in Veterinary Science.

Text-Books.

Anatomy—Chauveau, Strangeway, Leisering's Anatomical Plates.
Practice—Robertson, Williams, Steele, Gresswell, Friedberger and Froehner.
Surgery.—Williams, Fleming.
Shoeing.—Fleming, Hartmann.
Obstetrics.—Fleming, Harms.
Bacteriology.—Fraenkel.
Materia Medica.—Dun, Froehner.
Histology.—Schaefer.
Exterior of Horse.—Gunther, Goubaux and Barrier.

The Academy.

Faculty.

W. K. PATTERSON, Principal.
J. LEWIS LOGAN, A. B., Assistant.
J. MORTON DAVIS, A. B., B. S., Assistant.
V. E. MUNCY, Assistant.

I. Scientific, Agricultural and Engineering Course.

FIRST YEAR.—Arithmetic through percentage, Robinson's Higher; Algebra, Wentworth's Higher to chapter XI.; Political and Descriptive Geography, Butler's Complete; History of the United States, Eggleston's; English Grammar, Patterson's Advanced.

SECOND YEAR.—Arithmetic completed, Robinson's Higher; Algebra, Wentworth's Higher to chapter XXII.; Elementary Physics, Gage's; Physical Geography, Maury's; General History, Anderson's; Rhetoric, Williams'; Synonyms, Graham's; Shopwork.

II. Classical and Normal Course.

FIRST YEAR.—Latin Grammar, McCabe's Bingham's; Scudder's Gradatim; White's Beginner's Greek Book; Arithmetic through percentage; Robinson's Higher; Algebra, Wentworth's Higher to chapter XI.; Political and Descriptive Geography, Butler's Complete; English Grammar, Patterson's Advanced.

SECOND YEAR.—Latin Grammar continued; Cæsar (Kelsey's); Virgil and Latin Exercises; Greek Grammar continued; Xenophon's Anabasis (Kelsey's); Homer's Iliad; Arithmetic completed, Robinson's Higher; Algebra, Wentworth's Higher to chapter XXII.; Elementary Physics, Gage's; Rhetoric, Williams'; Synonyms, Graham's.

TIME TABLE OF COURSES IN THE ACADEMY.--Scientific, Agricultural and Engineering.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Saturdays, 8 A. M. to 1 P. M.
First Year.	English Grammar	Geography.	Arithmetic.	Algebra.	Drill.	
	English Grammar	History.	Arithmetic.	Algebra.	Drill.	
Second Year.	Rhetoric.	Algebra.	Physical Geography.	Arithmetic.	Drill.	*Shop Work.
	Rhetoric, Synonyms.	Algebra.	History.	Physics.	Drill.	*Shop Work.

Classical and Normal.

First Year.	English Grammar	Latin Grammar.	Arithmetic.	Algebra.	Drill.	
	English Grammar	Latin Grammar.	Arithmetic.	Algebra.	Drill.	
Second Year.	†Greek Grammar, Rhetoric.	Algebra.	Cæsar.	Physics.	Drill.	
	†Greek Grammar, Rhetoric, Synonyms.	Algebra.	Virgil.	Arithmetic.	Drill.	

*For Mechanical Engineering students only. †For Classical students only.

Business Department.

(Lexington Business College.)

Faculty.

C. C. CALHOUN,
Principal.

J. H. McCALL,
Assistant in Book-Keeping.

B. B. JONES,
Business Manager and Assistant in Book-Keeping.

MISS MAY E. MILLIKAN,
FRANK A. GROSECLOSE,
Assistants in Phonography.

W. J. ROSS,
ROSS SPRAGUE,
Assistants in Telegraphy.

H. F. SPENCER,
Assistant in Penmanship.

Courses in Commercial Department.

This Department is self-sustaining, depending upon its tuition fees for its maintenance; but the College has made arrangements with Prof. Calhoun to give instruction without extra charge to all matriculates of the State College who desire to add Book-keeping to the other courses of study provided by the College.

Those students who matriculate in the Commercial, Short-hand and Telegraphy Department will pay the fees charged by that Department for its several courses of study. All such students may have access to any of the classes in any of the other Departments of the College upon payment of two-thirds of the fees charged by the College; and conversely all matriculates of the College may have accesss to the classes in Phonography, Type-writing, Telegraphy and Penmanship in the Commercial, Short-hand and Telegraphy Department upon payment of two-thirds of the regular fees charged by that Department.

All the matriculates of this Department are subject to the regulations of the College.

Prof. Calhoun, with his corps of efficient teachers, who have had practical experience in their lines of work, is able to give the very best training in theory and practice.

A very handsome building has recently been completed for this Department, in which the student has facilities for theory and practice second to none.

The importance of a thorough course of training for those who intend to apply themselves to business pursuits can not be over-estimated. Practice alone does not suffice. The physician who betakes himself to the healing art without a previous knowledge of anatomy and physiology, and the surveyor who attempts to compute areas and determine boundaries without a knowledge of Trigonometry, are on a par with the merely practical book-keeper. A rational art of book-keeping must be based upon a knowledge of the principles which make book-keeping possible. To provide the pupil with an adequate knowledge of scientific principles as well as of their application to the keeping of accounts, is the object of the Department, whose announcement is now made.

Phonography and Type-writing are included in this Departmeut. The constantly increasing demand for short-hand in reporting speeches, sermons and the proceedings of public deliberative bodies, in recording evidence in court, and in the correspondence of bnsiness firms, is one of the most marked characteristics of the day. The effectiveness of Phonography has been largely increased by the type-writer, which greatly lessens the labor of transcribiug the short-hand notes ef the reporter. For these indis ensable auxiliaries of a good commercial education, this Dcpartment is prepared to provide every facility required.

The numerous demands for telegraph operators have rendered it necessary that telegraphy should be added to this Department, and accordingly it has been well equipped with all modern telegraph instruments of the best make. The students are drilled in handling telegraph business, both railroad and commercial. We have all the standard forms in use on all the best railroads, and the students' daily practice is such as to famiiiarize them with all the duties of a telegraph operator or agent.

This Department is also provided with a main line of nearly two miles in length, over which considerable practical work is done.

The Department has every facility necessary for giving a thorough and practical training.

Lectures on Commercial Law.

A special course on commercial law has been arranged for, and will be delivered on Saturdays. This course of lectures alone is worth the

price of a scholarship to any young man or woman. The lectures are free to students of all departments of the State College who pursue the studies recommended by the lecturer. Others, not pupils of the State College, can have the benefit of them by the payment of five dollars for the entire course.

Diplomas.

All who complete the entire course of study are entitled to and receive a full course diploma signed by the President of the State College and the Governor of the Commonwealth.

Fees.

A complete course involving actual practice and embracing Commercial Law, Penmanship and Book-keeping (merchant's, partnership, compound company, commission, joint stock, banking, lumber, cotton and mining), $55.

A complete course in Short-hand, Spelling, Penmanship and Punctuation, $45.

A course in Type-writing, $10.

A complete course in Penmanship, $4 per month.

A complete course in Telegraphy, Commerc al and Railroad Book-keeping, Penmanship, Spelling, Arithmetic and Commercial Law, $55.

For further information in regard to this Department send for special catalogue, or address C. C. Calhoun, Box 810, Lexington, Ky.

Regulations.

Traveling Expenses of Students.

By the terms of the recent legislation upon the Agricultural and Mechanical College of Kentucky, a county appointee is entitled to have his traveling expenses from home to the College and return paid by the College, on the following conditions:

1st. He must be appointed according to law, a copy of which is in the hands of each County Superintendent of Schools.

2d. He must travel from home to the College by the shortest, least expensive and most expeditious route, and take receipts for all necessary expenses of travel, depositing the same upon arrival with the President of the College.

3d. He must present himself for matriculation within one week after the beginning of the fall term of the collegiate year.

4th. He must bring a certificate of good moral character, signed by two or more well known and responsible citizens of his county.

5th. He must pass creditably the entrance examination required for admission.

6th. He must remain a student of the College for ten consecutive months or one collegiate year.

7th. He must maintain during the collegiate year such class standing as will enable him to pass the final examinations at the end of the year.

8th. He must maintain a good character and maintain such class standing as the regulations require.

If at the end of the collegiate year the foregoing conditions have been complied with, the President of the College shall certify the fact to the Treasurer of the College, who upon said certificates as vouchers, shall pay to the appointee the amount shown by the receipts aforesaid. and in addition thereto the sum for discharging the necessary expenses to be incurred in returning home.

College Expenses.

The necessary expenses of a student while at College need not exceed the following estimates. As a rule the less pocket money allowed by parents or guardians, the better it is for thepupil. When supplies of pocket money are kept short, the opportunity for contracting vicious habits is correspondingly diminished. Students should not be allowed by their parents to create any debts. All

moneys intended for the use of the students should be deposited with the Commandant.

For a county appointee occupying a room in the dormitory and boarding in the common mess, the necessary expenses are as follows:

Tuition free	$000.00
Matriculation free	000.00
Room rent free	000.00
Use of furniture in room	2.50
Washing, about	10.00
Uniform	19.00
Board, 38 weeks, at $2.25 per week	85.00
Books, about	8.00
Total	$125.00

Each room must be provided by each occupant thereof, *at his own expense*, with a good mattress, three comforts or blankets, one pillow, three pillow-slips, four sheets, looking-glass, blacking brush, hair-brush, clothes-broom or brush. Some of these articles may be brought from home by the student.

For students who are not supplied with appointments from the Legislative Representative Districts of the Commonwealth, and who board in private families, the necessary expenses will be as follows:

Tuition fee	$15.00
Matriculation fee	5.00
Board and lodging, 38 weeks, at $3.50 to $4 per week	133.00 to $152.00
Washing	10.00
Books and stationery	10.00
Total	$173.00 to $182.00

Those who occupy rooms in the dormitory pay $6.50 each (yearly) for the use of a room and its furniture. A standing deposit of $5 is required from each student, which deposit is refunded when his connection with the College is terminated, less the amount which may be assessed against him for the damages done to the buildings, furniture or premises. All damages, injuries, defacements, etc., which rooms and furniture in the dormitory sustain during occupancy will be charged to the occupants thereof. All injuries, damages, defacements, etc., which the halls and dining-room sustain will, unless specifically traced, be charged to the occupants of the respective sections collectively.

Boarding.

For the accommodation of students sent as beneficiaries of Legislative Representative Districts of the State, rooms for one hundred and forty students are provided in the dormitories. To these, good substantial board is furnished at $2.25 per week, payable weekly in advance; but no student under seventeen years of age will be permitted to room in the dormitories, unless all of his classes shall be in the regular collegiate courses. Good boarding with fuel, lights and furnished room, can be obtained in private families at rates varying from $3.50 to $4 per week.

The students who board in the dormitories are, for business purposes, organized at the beginning of the collegiate year under a Chairman and Secretary of their own choice, whose successors are elected on the first Tuesday of each term, and who serve for one term. At the business meeting held on Tuesday night of each week, the weekly dues, $2.25, are paid. The boarding department is managed by a Board consisting of the President of the College, the Commandant, a Treasurer, who is a member of the Faculty, and into whose hands all the weekly dues are placed when collected, a Steward, a Chairman and a Secretary selected by the students. It will thus be seen that the boarding department has no official connection with the College authorities. The College, as such, does not board the students, and is in no sense responsible for any debts created by the boarding department. Two members of the Faculty, in their individual capacity, assist in the management of its funds.

No provision is made for women in the dormitories.

Beneficiaries.

Each Legislative Representative District is allowed to send, on competitive examination, *one properly prepared student* each year, to this College, free of charge for tuition.

Beneficiaries are appointed on competitive examination. A Board of Examiners is appointed for this purpose by the County Superintendent of common schools. The results of examination are reported to the Superintendent, who, from the data thus furnished, selects the appointee. Examinations are made upon subjects transmitted to the County Superintendent by the Faculty of the College. One appointment is made each year.

Appointments are made by the County Superintendent between the first day of June and the first day of August of each year. Appointments when made should be immediately certified to the President of the College.

Appointments for the College proper, viz: the Agricultural, Mechanical Engineering, Civil Engineering, Scientific, Classical and

Veterinary courses are all valid for the term of years necessary to complete the course of study in which the appointee matriculates. This includes the course in the Academy.

It follows from the above that a county which makes its appointments regularly according to law will have for the session of 1893-4 one appointee in the College, for the session of 1894-5 two appointees, for the session of 1895-6 three appointees, for the session of 1896-7 four appointees. When the first appointee completes his course, or ceases to be a student, another appointee takes his place. When the quota of a county is full it will have at least four appointees in regular attendance.

Each appointee is required to pass an entrance examination at the College on the subjects comprising all that is embraced in Arithmetic, English Grammar, Geography and United States' History, in the Common School Course.

All persons are eligible between the ages of fourteen and twenty-four who have completed the Common School Course—preference being given to young men or women whose means are limited, to aid whom the provision is especially intended.

Any person not an appointee may enter the College on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from payment of fees.

Appointees to the Normal Course.

The law makes provision for the appointment of four teachers, or persons preparing to teach, each year. Appointments may be made and certified to the President of the College between the first day of July and the thirty-first of December of each year.

Appointments to the Normal School are tenable for one year.

Applicants for appointment are examined by a Board of Examiners appointed by the County Superintendent on subjects transmitted by the Faculty, viz: upon Arithmetic, English Grammar, United States History and Geography. They should not be less than seventeen years of age. They are also required to pass an entrance examination at the College. They must likewise bring certificates of good moral character.

Matriculates in the Normal Department will be required to sign an obligation to teach in the Common Schools of Kentucky for as many months as they receive free tuition

Student Labor.

The work necessary for carrying on the agricultural and horticultural operations of the College is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is two-

fold: to put in practice the instruction received in the class-room, and to assist students who are in need of money. The experience of this College is that of Agricultural Colleges generally—that compensated labor is not remunerative to the College.

The College assumes no obligation to furnish students an opportunity to labor for compensation.

Students are paid monthly for the service rendered, and apply the money as they see proper.

No student, however, should come to this College expecting to maintain himself exclusively by compensated labor. At least seventy-five dollars per annum, exclusive of his earnings while here, should be at the command of every student who wishes to avail himself of the advantages of the system of compensated labor.

Certificates of Character.

All applicants for admission into any class of the College or Academy must bring satisfactory testimonials of good moral character.

The Monitress.

The young women who attend the College have assigned for their exclusive use a large and well appointed study-room. Here, while they are not engaged in the class-rooms or in the chapel, they are under the constant and strict supervision of the Monitress, Mrs. Blackburn, who has been long connected with the College and is well qualified for her duties.

Military Department

CAPT. S. M. SWIGERT, 2D CAVALRY, U. S. A.,
Commandant.

Cadet Battalion.

Infantry.

LIEUT. AND ADJT., T. R. DEAN.
LIEUT. AND QR. MASTER, J. W. CARNAHAN.
SERGT. MAJ., M. E. HOUSTON.

A COMPANY.	B COMPANY.
Capt., J. W. Moore.	Capt., L. Powell.
1st Lieut., J. T. Geary.	1st Lieut., H. C. Anderson.
2d Lieut., G. M. Asher.	2d Lieut., J. D. Turner.
1st Sergt., R. E. Warren.	1st Sergt., M. T. Kirk.
Sergt., W. J. Cahill.	Sergt., W. A. Duncan.
Sergt., J. T. McCawley.	Sergt., W. H. Davis.
Sergt., J. C. Frazier.	Sergt., W. H. Scherffius.
Sergt., J. T. Haley.	Corp., M. L. Conley.
Corp., H. N. Davis.	Corp., T. G. Roach.
Corp., S. R. Allen.	Corp., T. W Schultz.
Corp., H. S. Beardsley.	Corp., C. Reich.
Corp., B. W. Duck.	

Artillery.

Capt., J. I. Lyle.
1st Lieut., H. B. Roberts.
1st Sergt., G. M. Morgan.
Sergt., G. F. Blessing.
Corp., S. C. DeBow.

In charge of Signal Department, J. C. Coyle.
In charge of Field Music, G. W. Muir.

Graduated June 6, 1895.

Mary Lyons Atkins, B. S.
John Irvin Bryan, B. M. E.
Henry Skillman Bush, B. S.
Mary Le Grand Didlake, B. S.
Joseph Milton Downing, B. M. E.
John Vick Faulkner, B. C. E.
Lucy Stuart Fitzhugh, A. B.
Nettie Belle Foster, B. S.
Elizabeth Whittington King, A. B.
Thomas Stone Lewis, A. B.
James Asa McConathy, B. S.
Mary Catherine McCoughliffe, B. S.
Paul Ingold Murrill, B. S.
Roberta Newman, B. S.
Nellie Anna Reynolds, B. S.
Richard Charles Stoll, A. B.
Rufus Lee Weaver, B. S.
John Webb Willmott, A. B.
John Joseph Woods, A B.

Granted a Certificate.

Robert Lee Cowherd,
in Mechanical Engineering.

William Joseph Foley,
in Veterinary Science.

Undergraduates.

Alford, Smith Edison	Class. 3.	Lexington.
Allen, William Raymond	Class. 3	Lexington.
Amburgy, Cullen	Norm	Pine Top.
Appleton, Ethelbert Herr	Sci 1	Lexington.
Arnold, Henry Bascom	Norm	Hyattsville.
Arnold, William Benjamin	Norm	Owingsville.
Armstrong, Myrtie Belle	Norm. 2	Lexington.
Anderson, Henry Clay	Mecn. Eng. 2	Seven Guns.
Andrews, F. E	Mech. Eng	Lexington.
Asher, George Matt.	Mech. Eng. 2	Wasiota.
Atkins, Antoinette Thornton	Sci. 2	Lexington.
Atkins, Bertie Allene	Sci. 3	Lexington.
Atkins, Mary Lyons	Sci. 4	Lexington.
Baker, Harvey	Acad. Class. 1	Limaburgh.
Bailey, John C. Breckinridge	Acad. Class. 2	Dixon.
Bannister, John Kirtley	Sci. 2	Sherman.
Barber, Lanus Spurgeon	Sci. 4	Lexington.
Bartlett, William Young	Acad. Class. 1	Madisonville.
Beardsley, Harry Shedd	Sci. 2	Kansas City, Mo.
Beatty, Beverly Perry	Norm.	Pigeon Roost.
Beazley, Luther Branham	Acad. Sci. 2	Hyattsville.
Bell Emma Scott	Sci. 2	Lexington.
Berry, Liston	Acad. Class. 1	Sturgis.
Blackford, Denny Burns	Class. 1	Keene.
Blackford, Metta	Sci. 1	Lexington.
Blessing, George Frederick	Mech. Eng. 2	Carrollton.
Bonnyman, James Joseph	Civ. Eng. 1	Lexington.
Bosworth, Benjamin Thomas	Sci. 1	Fort Spring.
Brand, Leslie	Class. 2	Broadwell.
Brock, George Green	Class. 1	Bush.
Brock, Lafayette Breckinridge	Sci. 1	Lexington.
Brodie, Thomas Lawrence	Acad. Civ. Eng. 2	Church Hill.
Bronaugh, William Logan	Class. 1	Lexington.
Bryan, John Irvin	Mech. Eng. 4	Lexington.
Bryan, Volney Hewitt	Acad. Class. 2	Lexington.
Bufflngton, Richard Lyell	Mech. Eng. 2	Huntington, W. Va.
Bullock, Frederick Dabney	Sci. 1	Lexington.
Bullock, J. H	Mech. Eng	Lexington.
Bullock, Samuel Archibald	Mech. Eng. 3	Lexington.
Burton, Thomas Creed	Norm. 1	Whalen.

Bush, George Lewis .....Mech. Eng. 1....Lexington.
Bush, Henry Skillman.....Sci. 4.....Lexington.
Bush, Jessie May.....Norm. .....Waco.
Bush, Tillie Wells.....Norm. .....Waco.
Butner, Ellen Eliza. .....Norm. .....Wildie.
Butner, Lillie Catherine.....Norm. ....Wildie.
Butner, Carrie Elizabeth ....Norm. .....Wildie.
Caddell, William Jasper.....Norm. .....Holly Hill.
Caddell, George Harlan.....Norm. .....Holly Hill.
Caden, Alice Beatrice ..... Chem. Spec ... .Lexington.
Cahill, John Joseph.....Acad. Agr. 1.....Lexington.
Cahill, William James David..Mech. Eng. 1.....Lexington.
Caldwell, Rhoda.. .....Norm. .....Ballard.
Campbell, Thomas Luther....Class. 1..... ..Clinton.
Campbell, Walter Gilbert....Acad Class. 1....Flat Lick.
Canter, Henry Marshall.....Acad. Class. 1....Lynnville.
Carnahan, Joshua Gordon....Norm. .....Manchester.
Carnahan, James William....Class. 3..... .....Manchester.
Carey, George Burgess .....Mech. Eng. 3.....Louisa.
Carpenter, William Thomas .Mech. Eng. 1.....Lexington.
Carroll, Mary Joseph.....Norm. 2 .....Lexington.
Case, Daniel Morris.....Mech. Eng. 3.....Lexington.
Case, John Burrus.....Sci. Spec.....Lexington.
Cassell, Anna Belle.....Acad. Sci. 2.....Lexington.
Cassidy, Elizabeth.....Sci. 2.....Lexington.
Chapman, Napoleon Bonaparte, Norm..... ....Louisa.
Chappell, James Keene.....Acad. Norm. 1....Centre Point.
Chonning, Marion Lee.....Norm.....Avenstoke.
Christian, Birdie.....Norm.....Walnut Hill.
Clarke, Mary Eva.....Sci. 2 ....Lexington.
Cole, Marshall Burton.....Acad. Vet. 1.....Lexington.
Collier, William Henry .....Mech. Eng. 1.....Hooktown.
Conley, Martin Leslie.....Mech. Eng. 1.....Louisa.
Cooley, Frank.....Civ. Eng. 1.....Williamsburg.
Cooper, Franklin Kelly.....Acad. Class. 1....Beech Grove.
Copland, Alexander C.....Acad. Civ. Eng. 2..Lexington.
Copland, George Forbes .....Mech. Eng. 1.....Lexington.
Copley, Samuel Newberry....Acad. Sci. 1 .....Inez.
Cornett, Charles George.....Norm .....Bush.
Cowherd, Marion George.....Acad. Sci. 1 .....Campbellsville.
Cowherd, Robert Lee.....Mech. Eng. 4.....Campbellsville.
Coyle, John Caldwell.....Norm. 1.....Canton.
Creek, Elizabeth Wills.....Norm.....Lexington.
Curtis, Clintie.....Norm.....Greendale.
Curtis, Corinne Lyle. .....Acad. Sci. 2.....Greendale.

Curtis, Hester.....Norm.....Piqua.
Dale, Samantha Buford.....Norm.....Judy.
Darling, Mamie Steele.....Norm.....Carrollton.
David, Clara.....Sci. 1.....Lexington.
Davidson, Harry Adolph.....Civ. Eng. 2.....Louisville.
Davis, Forrest William.....Acad. Class. 2...Lexington.
Davis, Horace Newton.....Civ. Eng. 2.....Lexington.
Davis, John Wilson.....Norm.....Marrow Bone.
Davis, Walter Hendricks.....Acad. Class. 2....Lexington.
Davis, William Tilden.....Acad. Class. 2....Lexington.
Dawson, Elbert Edwin.....Norm.....Owingsville.
DeBow, Samuel Carruthers...Mech. Eng. 2.....Hickman.
Dean, Thomas Rowland.....Class. 3.....Little Hickman.
Denny, Massie Leavell.....Acad. Sci. 1.....Lexington.
Denny, Van Hamilton.....Class. 1.....Lexington.
Didlake, Mary LeGrand.....Sci. 4.....Lexington,
Dillon, German Polk.....Norm.....Edmonton.
Dodds, Winnie Allie.....Norm.....Hickman.
Douglas, Frankie Belle.....Norm. 1.....Lexington.
Downing, Joseph Milton.....Mech. Eng. 4.....Lexington.
Duck, Alice.....Sci. 3.....Lexington.
Duck, Berkley Wilson.....Mech Eng. 2.....Lexington.
Dudley, Benjamin William...Acad. Class. 2....Lexington.
Duncan, William Adolphus...Mech. Eng. 2....Franklin.
Dunlap, John Jennings.....Class. 3.....Independence.
Durham, John Hayes.....Acad. Sci. 2.....Artemus.
Easley, Thomas Hunt.....Acad. Mech Eng.Black Walnut, Va.
Edwards, Eva Dale.....Norm.....Mason.
Elwell, John William.....Acad. Sci. 1.....Allison, Iowa.
Evans, Janie Belle.....Norm.....Panola.
Ewing, Matthew Orlando....Norm.....Green Grove.
Falconer, John Rutherford....Class. 4.....Fort Spring.
Fairchild, Jackson Dillon....Acad. Class. 2....Lexington.
Fairchild, Margaret.....Acad. Norm. 1..Lexington.
Faris, Samuel Reed.....Mech. Eng. 1.....Lexington.
Farley, Frank Preston.....Class. 1.....Flat Lick.
Faulkner, John Vick.....Civ. Eng. 4.....Hampton.
Fitzhugh, James Smith.....Acad. Norm...2..Sulphur Spring.
Fitzhugh, Lucy Stuart.....Class. 4.....Lexington.
Foley, John Jerome.....Acad. Sci. 2.....Hanley.
Foley, William Joseph.....Vet. Sci, 4.....Lexington.
Fossitt, George Lewis.....Class. 2.....Carntown.
Foster, Nettie Belle.....Sci. 4.....Lexington.
Frazer, Joseph W. Christie..Sci. 3.....Lexington.
Frew, James Wallace.....Chem. Spec.....Lexington.

Gaines, Chester A.....Sci. 1.....Bullittsville.
Gano, William Andrew.....Norm.....Sadieville.
Gardner John Abrahams.....Norm.....Lichfield.
Geary, John Thomas.....Sci. 2.....Lexington.
Gibson, George William P....Acad. Class. 1....Shelbyville.
Gibson, John Nathan.....Acad. Mech. Eng.Shelbyville.
Glass, Seth Amnon.....Norm.....Payne's Depot.
Graves. Robert Lee.....Sci. 1.....Lexington.
Griffing, Emma Rosetta.....Norm.....Lexington.
Gunn, Clara Brook.....Sci. 2.....Lexington.
Gunn, John Tevis.....Class. 1.....Lexington.
Gunn, Lucien Brook.....Mech. Eng. 1.....Lexington.
Halcomb, George William....Mech. Eng 1.....Franklin.
Halcomb, Thomas Allen.....Acad. Mech. Eng 1Franklin.
Haley, John Thomas.....Sci. 2.....Lexington.
Hallam, Mortimer.....Class. 1.....Paris.
Ham, Ora Tilton.....Acad. Mech. Eng. 1.Carlisle.
Hamilton, Henry Crist.....Mech. Eng. 1.....Salt River.
Hamilton, John William.....Norm.....Brandenburg.
Hamilton, Robert Browning .Class. 1.....Lexington.
Hamilton, Thomas Smith....Mech. Eng. 1.....Lexington.
Hammack, Davis William....Sci. 1.....Cane Creek.
Hammonds, Ida May.....Norm.....Cowen.
Hannibal, Michael Andrew...Acad. Sci. 2....Lexington.
Harris, Claude Elmer.....Acad. Sci. 1.....Independence.
Harris, Columbus Iloff., ...Norm.....Boxville.
Harrison, Kate Alice.....Norm.....Lexington.
Harrison, John Christian.....Acad. Sci. 1.....Lexington.
Harting, William Arthur....Civ. Eng. 2.....Lexington.
Haydon, Alexander Gunn.....Acad. Mech. Eng. 2 Keene.
Head, Lee Ira.....Norm.....Owensboro.
Henrickson, Mary Jane.....Norm.....Lexington.
Henry, Edward Joseph.....Sci. Spec.....Fort Spring.
Hicks, Arthur Lee.....Norm. 2.....Danleytown.
Hill, Mathew Edgar.....Acad. Class. 2....Lexington.
Hipsher, Louisa.....Norm.....Loradale.
Holoch, William Gustave....Norm.....Carntown.
Hostetter, Jacob Henry.....Acad. Sci. 2.....Lexington.
Houston, Mark Elliot.....Mech. Eng. 2....Taylorsville.
Huddleston, James Taylor....Norm.....Water View.
Humphrey, Ambrose Wesley .Sci. 1.....Middleburg.
Hunt, Rosa.....Norm.....Paris.
Hutsell, Helen Rosa.....Norm.....Lexington.
Ingrim, Vergne.....Acad. Sci.....Vanceburg.
Jenkins, John King.....Acad. Mech Eng. 2.Henderson.

Johnson, Frank Asberry	Vet. Sci. 1..	Louisa.
Johnson, Ishmael	Norm	Stanton,
Johnson, John Bockover	Sci. 1	Lexington.
Johnson, William Piatt	Norm	Clinton.
Johnson, Jack Stubblefield	Class. 1	Muir.
Johnston, John Pelham	Acad Mech. Eng 1	Lexington.
Jolly, James Brady	Norm. 1	Germantown.
Jones, Adams Baughman	Chem. Spec	Matr. Ky Univ.
Jones, William Marion	Norm	Barbourville.
Justice, Edwin Bascom	Norm	Sip.
Kelly, Thomas Conway	Mech. Eng. 2	Georgetown.
Kemper, Charles Madison	Acad. Sci. 2	Marksburg.
Kerrick, Felix	Ciass. 3	Calhoun.
Kidd, Asa Steele	Acad. Sci. 1	Kiddville.
King, Arthur Paxon..	Acad Mech Eng 2.	Corydon.
King, Elizabeth Whittington	Class. 4	Lexington.
King, James Floyd	Acad Mech.Eng.1.	Frost.
King, Margaret Isadora	Class. 1	Lexington.
King, Thomas Edward	Norm	Cynthiana.
Kirk, Millard Tevis	Sci. 1	Inez.
Knox, Melvin Lawrence	Norm.	See.
Kreiner, John Henry	Class 1	Paris.
Land, Hamilton Headley	Acad Sci. 2	Lexington.
Lassiter, William Albert	Norm. 1	Hise.
Lavin, Sallie Ambrosia	Acad. Sci. 2	Walnut Hill.
Lewis, Herbert Price	Norm	CollegeHill.
Lewis, Thomas Stone	Class. 4	Taylorsville.
Linthicum, Mollie Lavinia	Norm	Wickliffe.
Literal, James Milton	Norm.	Russell.
Loevenhart, Arthur Solomon.	Sci. 1	Lexington.
Loevenhart, Edgar Charles.	Mech. Eng. 1	Lexington.
Lucas, Ida West	Class. 1	Lexington.
Lyle, Cornelius Railey	Acad. Sci. 1	Lexington.
Lyle, Ernest Thornton	Acad. Sci. 1	Lexington.
Lyle, Joel Irvin	Mech, Eng. 3	Lexington.
Lynch, Anne Catherine	Norm.	Chilesburg.
Lyne, Frank Farra	Acad. Class. 2	Brannon.
Mannin, John Harper	Civ. Eng. 2	Hebron.
Marshall, Ann	Norm,	Corinth.
Marshall, John James	Norm.	Corinth.
Martin, Pierce..	Norm.	Humphrey.
Mathers, Taylor	Acad. Civ. Eng. 1.	Carlisle.
Matthews, Ethel	Sci. 1	Lexington.
Mattingly, Hilda Ellen	Norm.	Woodland.
McCain, Linn Hemingway	Acad. Sci. 2	Bedford.

McCann, Mary Elizabeth....Sci. Spec.....Muir.
McCauliffe, Mary Catherine Sci. 4 .....Lexington.
McCawley, James Taylor....Acad. Sci. 2.....Morganfield.
McConathy, James Asa.....Sci. 4.....Kirklevington.
McConnell, John .....Sci. 1.....Versailles.
McDanell, Harry Pryor.....Acad. Sci. 1 .....Warsaw.
McDowell, Edward Campbell. Mech. Eng. 3....Cynthiana.
McElroy, Courtney Watts....Civ. Eng. 1.....Morganfield.
McGovern, Annie .....Norm. .....Lexington.
McGovern, Hugh Edward....Acad. Sci. 2.....Lexington.
McGovern, Mary Ellen .....Norm. 1.....Lexington.
Metcalf, Lettie Pickett.....Norm .....Brooksville.
Middleton, Lavinia.....Norm.....Harlan C. H.
Miller, Minnie Blades.....Acad. Sci. 2.....Lexington.
Minter, Florence Ellen .....Norm.....South Fork.
Moffett, William Owen.....Norm..... .....Orr.
Moffitt William Alvie.....Norm.....Sedalia.
Moore, Joseph Womack .... Civ. Eng. 2.....Lexington.
Morgan, George Matthew....Sci. 2.....Lexingtou.
Morrow, Joseph.....Norm.....Rankin.
Muir, George Wallace.....Sci. 1 .....Lexington.
Mulligan, Lewis Houston.....Vet. Spec.....Lexington.
Murrill, Paul Ingold..... Sci. 4..... .....Hickory, N. C.
Myers James Donnan.....Norm.....Lexington.
Nash, George Pugh.....Acad. Sci. 1.....Fort Spring.
Neal, Lillian Bemass .....Norm ....Leathers' Store.
Neal, Nanci Lee.... .....Norm.....Leathers' Store.
Nelson, Robert.....Class. 1 .....Lexington.
Newman, Roberta.....Sci. 4 .....Muir.
Nichols, Ellis William.....Norm.....Greenup.
Nichols, Mary Lark.....Sci 1.....Lexington.
Noon, Nellie.....Norm. 2.....Lexington.
Northington, Mamie.....Norm .....Wickliffe.
Nuttall, John Price .....Acad. Sci. 1 .....New Castle.
Oldham, Marie Chenault.....Acad. Class. 2....Lexington.
Orman, Henry.....Mech. Eng. 3.....Danville.
Orton, William Francis .....Norm.....Slaughter's.
Paris, John Bartley .....Norm.....Ford's Ferry.
Phelps, Com. Vanderbilt.... Norm.....Stowers.
Philpott, Peter.....Norm..... .. Bryson.
Pope, Robert E. Lee.....Class. 1.....Barbourville.
Posey, Lallie Sullivent .....Norm. 1.....Henderson.
Powell, Luke .....Agr. 3.....Ashland.
Rankin, Adam Isaac .....Acad. Norm. 1....Rankin.
Ray, Samuel B. Douglas.....Norm.....Tompkinsville.

Reese, Asbury Stamper.....Acad.Mech.Eng.1.Hopkinsville.
Reid, Annie .....Acad. Class. 1....Edmonton.
Reid, George Thomas.....Sci. Spec.....Lexington.
Reich, Charles.....Acad. Sci. 1 .....Louisville.
Reynolds, Nellie Anna.....Sci. 4.....Lexington.
Rice, Henry Clay.....Norm.....Pineville.
Richmond, Carrie Francis....Norm .....Lexington.
Risk, William Theodore.....Acad. Class. 1....Midway.
Roach, Thomas Gideon.....Norm 1.....Fulton.
Roberts, George.....Norm .....Burnside.
Roberts, Hilery Bryan.....Sci. 1.....Payne's Depot.
Roberts, William Rankin....Acad. Sci. 2.....Brannon.
Rogers Bessie.....Norm. .....Newtown.
*Royster, Clementine Bruce.Norm .....Cayce.
Sadler, Francis Everett.....Acad. Class 2.....Hawsville.
Salyer. Elza .....Norm ....Flat Gap.
Sasser, William Henry.....Sci. 1.....London.
*Saunders, Charles Edward..Acad. Mech. Eng.Lexington.
Scherffius. William Henry....Acad. Sci. 2.....Lynnville.
Scholtz, Thoodore Walter....Acad.Mech Eng.2.Louisville.
Scott, Henry M. Skillman....Class 1.....Lexington.
Scott, John.....Class. 2 .....Lexington.
Scott, Nellie Dumont..... Acad. Sci. 1.....Lexington.
Searcy, Iula .....Norm. 2.....Lexington.
Shacklett, Wade Hampton...Norm .....Peckinpaugh.
Short, John Cleves..... Class. 1.....Lexington.
Sharon, George.....Norm..... .....Mt. Auburn.
Sharon, John Albert.....Norm. ....Mt. Auburn.
Shaw, Henry Pleasants.....Chem. Spec.....Matr. Ky. Univ.
Sigler, Philip Thomas.....Norm.....Boxville.
Simrall, James O. Harrison..Class. 2.....Lexington.
Simpson, Eugene Erwin.....Acad. Class 2....Lexington.
Slade, D. D.....Acad. Sci. 1 .Lexington.
Smedley, Albert..... .... Class. 2.....Fort Spring.
Smiley, Lewis Newman .....Acad. Norm. 1...Bakerton.
Smith, Sidney Allen.....Class. 1.....Lexington.
Smith, Nancy..... Sci. 3.....Cynthlana.
Smith, Mary Minerva.....Norm.....Harlan C. H.
Smith, W. W.....Chem. Spec .....
Spears, Robert Cave.....Acad Class. 2....Spears.
Spencer, Margaret Cassell....Acad. Sci. 2.....Lexington.
Stackhouse, Carrie Ellis.....Acad. Sci. 1.....Lexington.
Stackhouse, Thomas Calhoun.Acad. Sci. 1.....Lexington.
Staples, James Henry.....Acad. Sci. 1.....Lexington.

*Deceased.

Stevens, Bertie	Norm	Lexington.
Stevens, Edna Earl	Sci. 1	Walnut Hill.
Stevens, Jessie	Sci. 1	Walnut Hill.
Stiltz, Fred Godfrey	Acad. Sci. 2	Lexington.
Stoll, John George	Acad. class. 2	Lexington.
Stoll, Richard Charles	Class. 4	Lexington.
Stone, William Humphrey	Sci. 1	Taylorsville.
Strauss, Charles Lewis	Mech. Eng. 1	Lexington.
Taylor, Mary Webb	Norm	LaGrange.
Terrell, Hulett Smith	Vet. 1	Ithaca, N. Y.
Terry, Lila Beatrice	Norm. 1	Paris.
Trigg, John Henry	Sci. 3	New Columbus.
Trosper, Henderson Taylor	Class. 1	London.
Troup, Emma Blanche	Norm. 1	Lexington.
Turner, Job Darbin	Norm. 2	Minnie.
Vanmeter, R. C.	Sci. 1	Green Co.
Van Osdell, James Arthur	Acad. Class. 1	Lexington.
Vaughn, Frederick	Norm	Flat Gap.
Walker, Edward Craig	Acad. Class. 2	Anthoston.
Walker, William Sebastian	Mech. Eng. 1	Memphis, Tenn.
Waller, Gibson.	Acad. Sci. 1	Morganfield
Walsh, Robert Christie	Acad Class. 2	Lexington.
Walter, Luther Mason	Norm. 2	Blaine.
Ward, Edward Henry	Class. Spec.	Lexington.
Waring, Edward Taylor	Norm	Lynn.
Warner, Evan Taylor	Acad Mech Eng 1	Lexington.
Warner, Hattie Hocker	Sci	Lexington.
Warner, Kate Monroe	Acad. Sci. 1	Lexington.
Warner, Logie Hocker	Sci. 2	Lexington.
Warnick, Sue Bassett	Norm	Lexington.
Warren, Lizzie	Sci. 2	Lexington.
Warren, Richard Evans	Acad. Class. 2	Donerail.
Watkins, John McMurtry	Acad Mech Eng 1	Lexington.
Weaver, Rufus Lee	Sci. 4	Frazier.
Webb, William Snyder	Acad. Sci. 1	Greendale.
West, Kate Frost	Sci. 1	Franklin.
White, Martha Ripperdan	Sci. 2	Lexington.
Wilhoite, Walter Monroe	Acad. Sci. 1	Newberg.
Williams, Robert Lee	Norm	Golden Pond.
Willmott, John Webb	Class. 4	Lexington.
Wilson, Aquilla Payne	Norm	St. Helens.
Wilson, James Hardin	Norm	College Hill.
Withers, Raymond	Norm	Sylvan Dell.
Wood, John Henry	Sci. Spec	Russell's Cave.
Woods, John Joseph	Class. 4	Cynthiana.

Woods, William Michael.....Norm.....Cynthiana
Woods, John Wesley .....Class. 3.....Webbville
Wooton, William Beverley...Norm.....Oak Grove

Names of Students Classified.

Seniors.

Mary Lyon Atkins
John Irvin Bryan
Robert Lee Cowherd
Joseph Milton Downing
John Vick Faulkner
William Joseph Foley
Elizabeth Whittington King
Mary Catherine McCauliffe
Paul Ingold Murrill
Nellie Anna Reynolds
Rufus Lee Weaver
John Joseph Woods
Lanus Spurgeon Barber
Henry Skillman Bush
Mary LeGrand Didlake
John Rutherford Falconer
Lucy Stuart Fitzhugh
Nettie Belle Foster
Thomas Stone Lewis
James Asa McConathy
Roberta Newman
Richard Charles Stoll
John Webb Willmott

Juniors.

Smith Edison Alford
Bertie Allene Atkins
James William Carnahan
Daniel Morris Case
Alice Duck
Joseph Whitney Christie Frazer
Edward Campbell McDowell
Luke Powell
John Henry Trigg
William Raymond Allen
Samuel Archibald Bullock
George Burgess Carey
Thomas Roland Dean
John Jennings Dunlap
Joel Irvin Lyle
Henry Orman
Nancy Smith
John Wesley Woods

Sophomores.

Myrtie Belle Armstrong
George Matt Asher
John Kirtley Bannister
Emma Scott Bell
Leslie Brand
Mary Joseph Carroll
Mary Eva Clarke
Henry Clay Anderson
Antoinette Thornton Atkins
Harry Shedd Beardsley
George Frederick Blessing
Richard Lyall Buffington
Elizabeth Cassidy
Harry Adolph Davidson

Horace Newton Davis
Berkley Wilson Duck
George Lewis Fossitt
Clara Brook Gunn
William Arthur Harting
Mark Elliot Houston
John Harper Mannin
George Matthew Morgan
John Scott
James O. Harrison Simrall
Job Darbin Turner
Lizzie Warren
Samuel Carruthers DeBow
William Adolphus Duncan
John Thomas Geary
John Thomas Haley
Arthur Lee Hicks
Thomas Conway Kelly
Joseph Womack Moore
Nellie Noon
Lula Searcy
Albert Smedley
Logie Hocker Warner
Martha Ripperdan White

Freshmen.

Ethelbert Herr Appleton
Metta Blackford
Benjamin Thomas Bosworth
Lafayette Breckinridge Brock
Fred Dabney Bullock
George Lewis Bush
Thomas Luther Campbell
William Henry Collier
Frank Cooley
John Caldwell Coyle
Van Hamilton Denny
Samuel Reed Faris
Chester Arthur Gaines
John Tevis Gunn
George William Halcomb
Henry Crisp Hamilton
Thomas Smith Hamilton
Kate Alice Harrison
Helen Rosa Hutsell
John Bockover Johnson
James Brady Jolly
Millard Tevis Kirk
William Albert Lassiter
Edgar Charles Loevenhart
Ethel Matthews
Courtney Watts McElroy
George Wallace Muir
Marylark Nichols
Lallie Sullivent Posey
Carrie Frances Richmond
Hilery Bryan Roberts
Denny Burns Blackford
James Joseph Bonnyman
George Green Brock
William Logan Bronaugh
Thomas Creed Burton
William James David Cahill
William Thomas Carpenter
Martin Leslie Conley
George Forbes Copland
Clara David
Frankie Belle Douglas
Frank Preston Farley
Robert Lee Graves
Lucian Brook Gunn
Mortimer Hallam
Robert Browning Hamilton
David William Hammack
Ambrose Wesley Humphrey
Frank Asberry Johnson
Jack Stubblefield Johnson.
Margaret Isadora King
John Henry Kreiner
Arthur Solomon Loevenhart
Ida West Lucas
John McConnell
Mary Ellen McGovern
Robert Nelson
Robert E. Lee Pope
Samuel Bransford Douglas Ray.
Thomas Gideon Roach
William Henry Sasser

Henry Martyn Skillman Scott
Sidney Allen Smith
Jessie Stevens
Charles Louis Strauss
Lila Beatrice Terry
Emma Blanche Troup
William Sebastian Walker
Kate Frost West
John Cleves Short
Edna Earl Stevens
William Humphrey Stone
Hulet Smith Terrell
Henderson Taylor Trosper
Rollin Cyrus VanMeter
Luther Mason Walter
William Michael Woods

Special.

Frank Ernest Andrews*
Alice Beatrice Caden
James Wallace Frew
Thomas Edward King
Lettie Pickett Metcalfe
George Thomas Reid
Henry Pleasants Shaw*
John Henry Wood
Jones Adams Baughman*
John Burrus Case
Edward Joseph Henry
Mary Elizabeth McCann
Lewis Houston Mulligan
W. W. Smith
Edward Henry Ward

Postgraduate.

Hattie Hocker Warner

Normal Students.

Cullen Amburgy
William Benjamin Arnold
Jessie May Bush
Ellen Eliza Butner
Lillie Catherine Butner
William Jasper Caddell
Joshua Gordon Carnahan
Marion Lee Chowning
Charles George Cornett
Clintie Curtis
Samantha Buford Dale
John Wilson Davis
German Polk Dillon
Eva Dale Edwards
Matthew Orlando Ewing
John Abrahams Gardner
Emma Rosetta Griffing
Ida May Hammonds
Lee Ira Head
Louisa Hipsher
James Taylor Huddleston
Henry Bascom Arnold
Beverly Perry Beatty
Tillie Wells Bush
Carrie Elizabeth Butner
George Harlan Caddell
Rhoda Caldwell
Napoleon Bonaparte Chapman
Birdie Christian
Elizabeth Wills Creek
Hester Curtis
Mamie Steele Darling
Elbert Edwin Dawson
Winnie Allie Dodds
Janie Belle Evans
William Andrew Gano
Seth Amnon Glass
John William Hamilton
Columbus Iloff Harris
Mary Jane Hendrickson
William Gustave Holloch
Rosa Hunt

*Matriculates of Kentucky University.

Ishmael Johnson	William Piatt Johnson
William Marion Jones	Edwin Bascon Justice
Melvin Lawrence Knox	Herbert Price Lewis
Mollie Lavinia Linthicum	James Milton Literal
Anna Catherine Lynch	Ann Marshall
John James Marshall	Pierce Martin
Hilda Mattingly	Annie McGovern
Lavinia Middleton	Florence Elien Minter
William Owen Moffett	William Alvie Moffitt
Joseph Morrow	James Dennan Myers
Lillian Bemass Neal	Nanci Lee Neal
Ellis William Nichols	Mamie Northington
William Francis Orton	John Bartley Paris
Commodore Vanderbilt Phelps	Peter Philpott
Henry Clay Rice	George Roberts
Bessie Rogers	Clementine Bruce Royster*
Elza Salyer	Wade Hampton Shacklett
George Sharon	John Albert Sharon
Philip Thomas Sigler	Mary Minerva Smith
Birdie Stevens	Mary Webb Taylor
Frederick Vaughn	Edward Taylor Waring
Sue Bassett Warnock	Robert Lee Williams
Aquilla Payne Wilson	James Hardin Wilson
Raymond Withers	William Beverley Wootton

Students of the Academy.

First Year.

Baker, Harvey	Cahill, John Joseph
Canter, Henry Marshall	Chappell, James Keene
Cole Marshall Burton	Cooper. Franklin Kelly
Copley, Samuel Newberry	Cowherd, Marvin George
Denny, Massie Leavell	Easley, Thomas Hunt
Elwell, John William	Fairchild, Margaret
Gibson, George William Perceval	Gibson, John Nathan
Halcomb, Thomas Allen	Ham, Ora Tilton.
Harris, Claude Elmer	Harrison, John Christian
Ingrim Vergne	Johnston, John Pelham
Kidd, Asa Steel	King, James Floyd
Lyle, Cornelius Railey	Lyle, Ernest
McDanell, Harry Pryor	Mathers, Taylor
Nash, George Pugh	Nuttall, John Price
Rankin, Adam Isaac	Reese, Asbury Stamper
Reid, Annie	Reich, Charles

*Deceased.

Risk, William Theodore
Slade, D. D
Stackhouse, Carrie Ellis
Staples, James Henry
Waller, Gip
Warner, Evan Taylor
Webb, William Snyder
Scott, Nellie Dumont
Smiley, Lewis Newman
Stackhouse, Thomas Calhoun
Van Osdel, James Arthur
Warner, Kate Monroe
Watkins, James McMurtry
Wilhoite, Walter Monroe

Second Year.

Bailey, John C. Breckinridge
Beazley, Luther Branham
Brodie, Thomas Lawrence
Campbell, Walter Gilbert
Copland, Alexander Chisholm
Davis, Forest William
Dudley, Benjamin William
Fairchild, Jackson Dillon
Foley, John Jerome
Haydon, Alexander Gunn
Hostetter, Jacob Henry
Kemper, Charles Madison
Land, Hamilton Headley
Lyne, Frank Farra
McCawley, James Taylor
Miller, Minnie Blades
Roberts, William Rankin
Saunders, Charles Edward
Scholtz, Theodore Walter
Spears, Robert Cave
Stilz, Frederick Godfrey
Walker, Edward Craig
Warren, Richard Evans
Bartlett, William Young
Berry, Liston
Bryan, Volney Hewitt
Cassell, Anna Belle
Curtis, Corinne Lyle
Davis, Walter Hendricks
Davis, William Tilden
Durham, John Hayes
Fitzhugh, James Smith
Hannibal, Michael Andrew
Hill, Mathew Edgar
Jenkins, John King
King, Arthur Paxon
Lavin, Sallie Ambrosia
McCain, Linn Hemingway
McGovern, Hugh Edward
Oldham Marie Chenault
Sadler, Francis Everett
Scherffius, William Henry
Simpson. Eugene Erwin
Spencer, Margaret Cassell
Stoll, John George
Walsh, Robert Christie

Students of the Business College.

Adams. George Hawes ..... Pine Bluff, Ark.
Allen, S. H. ..... Lexington.
Allen, W. H. ..... Lexington.
Arbuckle, Luther L. ..... Cromwell.
Armstrong, Julia. ..... Lexington.
Arnold, Glendy Burke ..... Frankfort.

Bacon, Franklin.....Lexington.
Ballard, Elijah Franklin.....Ballardsville.
Bailey, Charles K.....Cynthiana.
Baker, Cal.....Lexington.
Baker, Katie M.....Lexington.
Baker, John R.....Lexington.
Barr, Robert M.....Lexington.
Barlow, John Allison.....Jacksonville.
Beal, William Henry.....Lagarto, Tex.
Beasley Fannie.....Lexington.
Beasley, Letcher.....Lexington.
Bell, John Lambert.....Lexington.
Bell, Mary Watson.....Lexington.
Bentley, Nannie Duvall.....Lexington.
Beverly, Frank Camillus.....Big Stone Gap, Va.
Boone, Robert E.....Hedges.
Boswell, Malcolm Temple.....Leesburg.
Broyles, Lena Leslie.....Lexington.
Brent, Allie Lee.....Walnut Hill, Va.
Brown, Frank Human.....Hamilton, N. C.
Brown, M. H.....Lexington.
Buckwalter, John Cassell.....Winchester.
Burke, Dorothy W.....Versailles.
Bush, Lewis Hampton.....Winchester.
Bullock, Sallie A.....Lexington.
Calhoun, Lelia Zerilda.....Owensboro.
Call, William Henry.....Mockville, N. C.
Carder, Judson J.....Hawesville.
Carpenter, George L.....Milledgeville.
Cardwell, John Cornelius.....Earles.
Cassell, W. H. Jr.....Lexington.
Cavens, Sallie.....Lexington.
Chowning, George L.....Shelbyville.
Clark, Frank.....Bryan, Tex.
Clark, Julia.....Lexington.
Clary, Henry Duke.....Shannon.
Clugston, Leslie.....Lexington.
Cobb, Samuel R.....Lexington.
Collier Alfred.....Balance.
Collins, Harold Helm.....Donerail.
Coons, Annie.....Lexington.
Conway, Margaret Bell.....Winchester.
Cox, Walter Chilton.....West Liberty.
Crabtree, Robert Rowan.....Lexington.
Crawford, Frank.....Rob Roy, Ind.

Crouch, Archie ..... Poplar Grove.
Crudup, Thomas H..... Kittrell, N. C.
Cull, William Elmer..... Lexington.
Curran, Thomas B..... Lexington.
Dangerfield, Bessie Parker. ..... Lexington.
Darnaby, Luella..... Lexington.
Darnaby, Mary..... Lexington.
Davidson, Hallie May..... Lexington.
Davis, William R..... Nicholasville.
Day. G. B..... Dundee.
Delaney. Olie B..... Hedges.
Demaree, William Yocum..... Louisville.
Dineen, Tim J..... Lexington.
Donlan, Maggie Cecilia..... Lexington.
Embry, Jacob..... Waxahachie, Tex.
Erwin. D. M..... Gainesville.
Folger, Frank..... Nicholasville.
Falkner, James Butler ..... Lexington.
Farmer, Lillian Myrtle ..... Lexington.
Fieber, Caroline Virginia ..... Cincinnati, O.
Fischer, Margaret E ..... New Orleans, La.
Foley. John Jerome ..... Hunley.
Forward, Edwin Joseph ..... St. Augustine, Fla.
Frank, Carl Schurz ..... Williamstown.
Frost, Clara Ernestine..... Lexington.
Frost, Henry Alvis..... Thibodeaux, La.
Frost Scudday D..... Thibodeaux, La.
Funk, John D..... Nicholasville.
Gaines, Foster B ..... Stamping Ground.
Galloway, Robert Lee..... Falmouth.
Gay, Lizzie G..... Lexington.
Gibbons, Mamie..... Lexington.
Gibson, P. B..... Ironton, O.
Golden, Mildred ..... Winchester,
Grady, Belfield C..... Lexington.
Gratz, Mrs. H. H..... Lexington.
Graves, Mrs. Addie E..... Lexington.
Green, Mrs. Manora..... Lexington.
Greenwood, Harry M..... Lexington.
Groseclose, George Gose..... Marion, Va.
Grow, Samuel Everett..... South Elkhorn.
Gunn, Thomas ..... Lexington.
Haggard, Annie Mayme..... Winchester.
Hair, Sallie R ..... Lexington.
Harman, John Daniel ..... Lexington.

Harris, Charles Morgan.....Versailles.
Hayes, F. M.....Lexington.
Hedrick, Ivelia.....Farmer's.
Herd, Andrew Tiffin.....Lexington.
Hersperger, Hubert E.....Nicholasville.
Hiatt, Hugh R.....Lancaster.
Hillenmeyer, Mrs. H. F.....Lexington.
Hisle, Clay.....Lexington.
Hisle, Edward.....Lexington.
Hisle, Lee.....Lexington.
Hornbrook, Sallie Adams.....Lexington.
Howell, William Boyle.....Hamilton, N. C.
Hudson, Ernest.....Lexington.
Hudson, Silas J.....New Columbus.
Hughes, Edwin.....Lexington.
Hughes, Elmer C.....New Columbus
Hughes, Gustavus Lycurgus.....Kuttawa.
Hutchinson, Hattie.....Lexington.
Hutchinson, Mattie D.....Lexington.
Hutchinson, Henry Judd.....Summerville, S. C.
Jameson, Ora B.....Stamping Ground
Johnson, Cave.....Clarksville, Tenn
Johnson, Frank Ashbury.....Louisa.
Jones, Hattie D.....Lexington.
Jones, Thurlow Weed.....Stanford.
Juett, Carl Hendrix.....Georgetown.
Keller, Thekla.....Lexington.
Kidd, Sallie M.....Lexington.
King, B. E.....Frost.
Kinsman, Daisy Jenett.....Cannon City, Col.
Klein, A. F.....Lexington.
Klein, L. A.....Lexington.
Klein, J. M.....Lexington.
Klein, R.....Lexington.
Klinkinbeard, E. K. S.....Winchester.
Kroesing, Lillie.....Lexington.
Lancaster, Albert C.....Lexington.
Lancaster, James.....Corinth.
Latham, Charles Francis.....Donerail.
Lear, Joseph M.....Nicholasville.
Lear, Samuel Boone.....Nicholasville.
Long, Edward James.....Bristow, Ia.
Lutes, Keene.....Pine Grove.
Lynch, Mary C.....Lexington.
Lyttle, Mamie.....Lexington.

Mack, John ..... Dundee.
Malone, James M..... New Canton, Tenn.
Malnoe, Armoud Joseph..... Paris, France.
Mathews, Robert ..... Lexington.
Maupin, Herman Harp ..... Lexington.
Maxwell, Mamie ..... Lexington.
McClanahan, George ..... Berlin.
McClintock, Samuel Sweney..... Lexington.
McFarlin, John William, ... Franklin.
McKee, Earle Sinclair..... Valdosta, Ga.
McKenney, Annie..... Lexington.
McNamara, John R..... Forrest.
McVey, Horace C..... Lexington.
Megee, Leslie Robert..... Lexington.
Meyers, Charles..... Lexington.
Mefford, Noel Clifton ..... Donerail.
Miller. Annie ..... Lexington.
Mitchell, Margaret A..... Richmond.
Minor, Hugh ..... Eastham, Va.
Moore, Bennett Franklin ..... Wilson, N. C.
Moore, Blanch Lorena..... Lexington.
Moore, Clarence David ..... Kittrell, N. C.
Moore, D. B..... Harrodsburg.
Morrow, Wilson Boyd..... Somerset.
Mullen, Edwin Ernest..... Lexington.
Mumford, Sallie B..... New Orleans, La.
Murphy, Lizzie ..... Lexington.
Montgomery, Ida..... Lexington.
Murray, Joseph Hoeing..... Lexington.
Myers, Benjamin..... Carlisle.
Nelson, Thomas R..... Lexington.
Nolan, James Edward..... Lexington.
Northcutt, R. L..... Williamstown.
Northcutt, W. A..... Williamstown.
Nightingale, Samuel W..... Doylestown, Pa.
Nutter, Lena C..... Newtown.
O'Conner, Mary..... Lexington.
Overton, William Dabney ..... Frankfort.
Parks, Mina..... Lexington.
Parks, J. M..... Lexington.
Patrick, William Riley ..... Williamsburg.
Patterson, Samuel..... Ft. Springs.
Patterson, Thomas C..... Ft. Springs.
Payne, Margaret Howard ..... Lexington.
Paxton, Amanda Catherine..... Lexington.

Pickens, Okey Pitt ..... Racine, O.
Powers, John Albert ..... Leighton, Miss.
Price, Joseph William ..... Owensboro.
Proctor, William G ..... Quail.
Rankin, Adam Isaac ..... Rankin.
Ransdell, William Whorton ..... Pendleton,
Reed, Alvin ..... Concord.
Rhein, Marcella ..... Lexington.
Richardson, Darby ..... Lexington.
Reid, Henrietta ..... Lexington.
Riley, Dexter W ..... Berlin.
Ringold, Samuel ..... Frankfort.
Rodegap, Gracie ..... Lexington.
Rogers, Charles LaFayette ..... London.
Ross, Robert C ..... Mayhew.
Rupard, Rosa ..... Winchester.
Saddler, Francis Everett ..... Hawesville.
Sebree, Owen C ..... New Columbus.
Shedd, Harry ..... Lexington.
Shedd, William Burchard ..... Lexington.
Shelby, Thomas Hart ..... Lexington.
Shoemaker, Finnell M ..... Falmouth.
Short, Laura Estella ..... Parksville.
Short, William Ambrose Dudley ..... Lexington.
Shropshire, Rosseau ..... Georgetown.
Sims, Lawrence Byron ..... Umatilla, Fla.
Sloan, Isaac Guthrie ..... Lexington.
Smith, Mattie Lee ..... Lexington.
Sously, Edwin ..... Lexington.
Sously, Norene Belle ..... Flemingsburg.
Spears, Thomas Cromwell ..... Lexington.
Stanley, Charley ..... Lexington.
Stewart, Wallace Agnes ..... Chambers
Stivers, Jerome Ernest ..... Walnut Hill.
Stone, Albert H ..... Lexington.
Strode, William Hall ..... Lexington.
Strossman, William Henry, Jr ..... Mt. Sterling.
Sturm, Joseph M ..... Demopolis, Ala.
Swango, John Morton ..... Frankfort.
Tarlton, Mrs. Charles Anderson ..... Lexington.
Thompson, George Edward ..... Columbus, Mo.
Titsworth, Leonard Ruben ..... Canadian, Tex.
Turner, Charles Foushee ..... Lexington.
Turner, Jonn W ..... New Columbus.
Umstead, Charles Admiral ..... Lexington.

Vandiver, John Green.....Faubush.
Vicroy, Charles .....Maysville.
Vicroy, William.....Maysville.
Wallace, Willie.....Golden Pond.
Walker, Robert B .....Lexington.
Walker, Samuel Pierce.....Lexington.
Walker, William Ruel .....Columbia.
Ward, Charles F .....Lexington.
Warren, Garler.....Lexington.
Warren, Gillois.....Mills.
West, Georgia B .....Lexington.
Wheeler, Inez .....Lexington.
Whittington, Clarence .....Valdosta, Ga.
Wiggins, C. P.....Piqua.
Williams, Calvert.....Lexington.
Williams, Irvine Ansel .....Ty Ty, Ga.
Williams, Jesse C.....Fort Ogden, Fla.
Williamson, Elmar.....Lexington.
Williamson, Raymond.....Oxford.
Wilson, Arthur.....Lexington.
Wilson, Fred L.....Lexington.
Wilson, Isaac M.....Winchester.
Wilson, James Alexander.....Hickory, N. C.
Wolverton, Artie .....Lexington.
Womack, Clay W.....West Liberty.
Woolfork, John H.....Lexington.
Wooton, Shirely.....Manchester.
Yates, Ray W.....Dexter, Tenn.
Yarborough, Bennie Green.....Franklinton, N. C.
Young, John Ellisworth.....Astoria, Ore.

Calendar for 1895-96.

1895.

Entrance Examinations begin	Monday, Sept. 9.
First Term begins	Wednesday, Sept. 11.
Thanksgiving	Thursday, Nov. 21.
Board of Trustees meet	Tuesday, Dec. 10.
Christmas Holidays begin	Friday, Dec. 20.

1896.

College Duties resumed	Thursday, Jan. 2.
Celebration of Washington's Birthday	Saturday, Feb. 22.
Patterson Society Oratorical Contest	Thursday, March 26.
Final Examinations begin	Wednesday, May 13.
Union Literary Society Exhibition	Friday, May 22.
Patterson Society Exhibition	Friday, May 29.
Board of Trustees meet	Tuesday, June 2.
Class Day	Wednesday, June 3.
Alumni meet	Wednesday, June 3.
Alumni Banquet	Wednesday June 3.
Commencement	Thursday, June 4.

College Directory.

	RESIDENCE.	COLLEGE QUARTERS.
Anderson, F. Paul.	69 Ky. Avenue.	1st Floor Mechanical Hall.
Aubrey, Thomas	243 S. Limestone St.	College Boiler Room.
Bennett, S. E.	154 S. Limestone St.	Veterinary Clinic Building.
Blackburn, Mrs. Lucy B.	30 Woodland Ave.	No. 14, 1st Floor Main Building.
Blanton, R. L.	50 W. 2nd St.	No 13, 1st Floor Main Building.
Curtis, H. E.	126 S. Upper St.	Chem. Lab , 1st Fl. Sta. Bld'g.
Davis, J. M.	122 S. Limestone St.	No. 1, Basement Main Building.
Dicker, Jos.	26 Va. Ave.	Mechanical Hall.
Garman, H.	424 S. Limestone St.	1st Fl. and Basement Sta. Bld'g.
Hawkins, T. S.	55 Winnie St.	Experiment Farm.
Hodges, Miss Mary.	231 E. High St.	No 10, 1st Floor Main Building.
Johnson, J. R.	Old Dormitory.	Mechanical Hall.
Kastle, J. H.	1 W High St.	2d Floor Station Building.
Logan, J. L.	97 S Broadway.	No. 2 Basement Main Building.
Mathews, C. W.	410 S. Limestone St.	Basement Station Building.
Miller, A. M.	124 S. Broadway.	No. 16, 2d Floor Main Building.
Milligan, R. A.	492 S, Limestone.	Mechanical Hall.
Muncy, V. E.	116 E. Maxwell St.	No. 10, 1st Floor Main Building.
Murray, James.	428 S. Limestone St.	College Conservatory.
Neville, J. H.	218 W. Main St.	No. 21, 3d Floor Main Building.
Nelson J. P.	Cor. Rose and Maxwell.	2d Floor Mechanical Hall.
Newman, J. W.	124 S. Broadway.	No. 8 1st Floor Main Building.
Patterson, J. K.	Brick Dwlg. on Campus.	No. 12 1st Floor Main Building.
Patterson, W. K.	Brick Dwlg. on Campus.	No. 17, 2d Floor Main Building.
Peek, Geo. T.	28 Va. Ave.	Mechanical Hall.
Pence, M. L.	108 Marino St.	Nos. 5 and 7 Basem'nt Main Bld'g
Peter, A. M.	171 Rose St.	Chemical Lab., 1st Fl. Sta. Bldg.
Pryor, J. W.	203 N. Broadway.	No. 9, 1st Floor Main Building.
Roark, R. N.	420 S. Limestone St.	No. 11, 1st Floor Main Building.
Scovell, M. A.	Experiment Farm.	Office, 1st Fl. Station Building.
Shackleford, John.	71 Woodland Ave.	No 19, 2d Floor Main Building.
Shelby, Miss A. M.	71 Ashland Ave.	Office 1st Floor Station Building.
Swigert, S. M.	Cottage on Campus	
Terrill, J. S.	172 W. Maxwell St.	1st Floor Station Building.
Wells, J. H.	107 E. Maxwell St.	1st Floor Mechanical Hall.
Wernicke, Paul.	107 E. Maxwell St.	No. 20, 2d Floor Main Building.
White, J. G.	140. E. Maxwell St.	No. 15, 1st Floor Main Building.

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Catalogue

of the

State College of Kentucky

For the Thirtieth Session,

1895-1896.

MAIN BUILDING STATION BUILDING NEW DORMITORY MECHANICAL HALL

CAMPUS OF STATE COLLEGE OF KENTUCKY.

CATALOGUE

OF THE

OFFICERS, STUDIES, AND STUDENTS

OF THE

State College of Kentucky,

LEXINGTON,

TOGETHER WITH THE REGULATIONS,

FOR THE

SESSION ENDING JUNE 4, 1896.

LOUISVILLE:
JOHN P. MORTON & COMPANY.
1896

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THE STATE COLLEGE OF KENTUCKY.

HISTORY.

AGRICULTURAL and Mechanical Colleges in the United States owe their origin to an act of Congress, entitled "An act Donating Public Lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts," approved July 2, 1862. The amount of land donated was 30,000 acres for each representative in the National Congress. Under this allotment Kentucky received 330,000 acres. Several years elapsed before the Commonwealth established an Agricultural and Mechanical College under the act. When established it was not placed upon an independent basis, but was made one of the Colleges of Kentucky University, to which institution the annual interest of the proceeds of the Congressional land grant was to be given for the purpose of carrying on its operations. The land-scrip had meanwhile been sold for fifty cents per acre, and the amount received—$165,000—invested in six per cent. Kentucky State bonds, of which the State became custodian in trust for the College.

The connection with Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed, and a Commission was appointed to recommend to the Legislature of 1879–80 a plan of organization for an institution, including an Agricultural and Mechanical College, such as the necessities of the Commonwealth required. The city of Lexington offered to the Commission (which was also authorized to recommend to the General Assembly the place which, all things considered, offered the best and greatest inducements for the future and permanent location of the College), the City Park, containing fifty-two acres of land, within the limits of this city, and thirty thousand dollars in city bonds, for the erection of buildings. This offer the county of Fayette supplemented by twenty thousand dollars in county bonds, to be used either for the erection of buildings or for the purchase of land. The

offers of the city of Lexington and of the county of Fayette were accepted by the General Assembly.

By the act of incorporation, and the amendments thereto, constituting the charter of the Agricultural and Mechanical College of Kentucky, liberal provision is made for educating, free of tuition, the energetic young men of the Commonwealth whose means are limited. The Normal Department, for which provision is also made, is intended to aid in building up the Common School system by furnishing properly qualified teachers. This College, with the additional departments which will, from time to time, be opened as the means placed at the disposal of the Trustees allow, will, it is hoped, in the not distant future, do a great work in advancing the educational interests of Kentucky. Being entirely undenominational in its character it will appeal with confidence to the people of all creeds and of no creed, and will endeavor, in strict conformity with the requirements of its organic law, to afford equal advantages to all, exclusive advantages to none. The liberality of the Commonwealth in supplementing the inadequate annual income arising from the proceeds of the land-scrip invested in State bonds, will, it is believed, enable the Trustees to begin and carry on, upon a scale commensurate with the wants of our people, the operations of the institution whose management and oversight have been committed to them by the General Assembly of Kentucky.

OBJECT.

In the act of Congress making provision for the class of colleges to which the State College partly belongs, it is declared "that their leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

THE NORMAL SCHOOL.

The Normal Department of the State College exists under the authority of acts of the General Assembly, approved April 23 and April 29, 1880. Section 7 of the first act briefly defines the object for which the Department was established, "but a

Normal Department or course of instruction for irregular periods, designed more particularly, but not exclusively, to qualify teachers for common and other schools, shall be established in connection with the College." The second act provides the necessary endowment to make the Department effective.

The number of students annually enrolled in the Normal School has exceeded expectation. As they come from all parts of the State, and many of them return well prepared for the profession of teaching, they must greatly promote the efficiency of our common schools generally, and demonstrate the wisdom of the General Assembly in providing an inexpensive Normal School, centrally located and easy of access, to keep the State always supplied with well-trained teachers.

THE KENTUCKY AGRICULTURAL EXPERIMENT STATION.

This Department of the State College originated in a resolution of the Executive Committee of the Board of Trustees, adopted in September, 1885, when the Department was organized and a Director appointed. In 1886 the Station was recognized and named by the General Assembly, and in 1887 it and a similar Station in every other State were each endowed by Congress with an annual appropriation of $15,000.

The work of the Station is directed to two objects: 1. To a constant succession of experiments by specialists, in order to learn what applications of science will insure the best returns from the farm, the garden, the orchard, the vineyard, the stock-yard, and the dairy. 2. To the publication of bulletins announcing such results of the experiments as are found to be valuable to any of our people that seek profit from either of those prime sources of wealth—the soil, the flock, or the herd.

Results of experiments have been published in six reports and fifty-three bulletins, and general appreciation of their utility is shown in the fact that, while no bulletin is sent except upon application for it, the mailing list of the Station contains more than 11,000 names, and is ever increasing.

With an ample endowment, a large and commodious building planned for the purpose, adequate apparatus, a good experimental farm conveniently situated, and seven capable scientists always employed and in correspondence with other stations, The Ken-

tucky Agricultural Experiment Station is not only an important adjunct of the College in the education of students for the leading industrial pursuits, but directly or indirectly through the wide and continual diffusion of knowledge for the benefit of so large a proportion of our population, it is bound to be extremely useful to the Commonwealth at large.

LOCATION.

The Agricultural and Mechanical College of Kentucky is established in the old City Park grounds of the City of Lexington, given to the Commonwealth for this purpose. The site is elevated, and commands a good view of the city and surrounding country.

Lexington is now the most important railroad center in Kentucky, being in immediate communication with Louisville, Cincinnati, Maysville, Chattanooga, and with more than seventy counties in the Commonwealth. The long-established reputation of the city for refinement and culture renders it attractive as a seat of learning, and the large body of fertile country adjacent, known as the "Blue Grass Region," with its splendid stock farms, affords unsurpassed advantages to the student of agriculture who desires to make himself familiar with the best breeds of horses, cattle, sheep, and swine in America.

GROUNDS.

The campus of the College consists of fifty-two acres of land, located within the corporate limits of Lexington. The South Limestone Street electric car line extends along the greater part of its western border, giving opportunity to reach in a few minutes any part of the city. The campus is laid out in walks, drives, and lawns, and is planted with a choice variety of native and exotic trees and shrubs, to which additions are constantly being made. A portion of the land has recently been reserved for a botanical garden in which will be grown the more desirable native plants, with a view to testing their adaptability to cultivation, and to give increased facilities to students taking agricultural and biological courses. Two and a half acres, forming the northeast portion of the campus, inclosed and provided with a grand stand, is devoted to the field sports of students.

About three-quarters of a mile south of the campus, on the Nicholasville pike, an extension of South Limestone Street, is the Experiment Station Farm, consisting of forty-eight and a

half acres. Here the field experiments of the Station are conducted, and students have opportunities to witness tests of varieties of field crops, dairy tests, fertilizer tests, fruit spraying tests, in short, all the scientific experimentation of a thoroughly equipped and organized Station. The front of the farm is pasture and orchard. The back portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

BUILDINGS.

The main college building is a structure of stone and brick, 140 feet long and 68 feet in width. It contains the office of the President and of the Business Agent, and on the third floor, counting the basement floor as one, is the chapel, in which each day the students and Faculty meet, and in which are held public gatherings and such other meetings as bring together the entire student body. The remaining space in this building is occupied by recitation rooms and by the society rooms of the students.

The Station building is a handsome structure, well planned for the object for which it is made. It is seventy feet in length by fifty-four feet in width, with a tower projection in front, and an octagonal projection eighteen by eighteen on the north side. The building is two stories high, and a basement eleven feet from floor to ceiling. The main entrance is on the first floor, on the west side of the building, through an archway fifteen feet wide. The basement is occupied in part by the Station and in part by the College. The next floor above is devoted to office and laboratory work of the Station, while the upper floor accommodates the College work in Chemistry.

The building devoted to Mechanical Engineering covers altogether an area of about 20,000 feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in this branch of engineering.

A new brick two-story building has been erected and furnished with modern conveniences for the work in Veterinary Medicine.

Two large brick dormitories on the campus afford boarding conveniences for students who wish to lessen expense in this direction. Other buildings on the campus are a brick dwelling for the President and a frame cottage at present occupied by the Commandant.

On the Experiment Farm are a brick dwelling occupied by the Director of the Station, and the usual farm buildings for the care of tools, the protection of stock, and the like.

BOARD OF TRUSTEES.

CHAIRMAN EX-OFFICIO.

HIS EXCELLENCY GOVERNOR WILLIAM O. BRADLEY.

SECRETARY.

V. E. MUNCY.

PRESIDENT JAMES K. PATTERSON, *Ex-officio.*

TERM EXPIRES JANUARY, 1898.

HON. R. A. SPURR,	Fayette County.
DAVID H. JAMES, ESQ.,	Fayette County.
JUDGE THOMAS H. HINES,	Franklin County.
JUDGE ROBERT RIDDELL,	Estill County.
GEORGE V. GREEN, ESQ.,	Christian County.

TERM EXPIRES JANUARY, 1900.

GEN. D. C. BUELL,	Muhlenberg County.
J. C. FLOURNOY, ESQ.,	Fulton County.
HON. J. T. GATHRIGHT,	Jefferson County.
HON. A. P. GOODING,	Mason County.
HON. W. F. PEAK,	Trimble County.

TERM EXPIRES JANUARY, 1902.

GEN. E. H. HOBSON,	Green County.
JOHN G. MATTHEWS, ESQ.,	Knox County.
HON. HART BOSWELL,	Fayette County.
JOHN B. KENNEDY, ESQ.,	Bourbon County.
CAPT. THOMAS TODD,	Shelby County.

EXECUTIVE COMMITTEE.

JUDGE THOMAS H. HINES, *Chairman.*
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HON. J. T. GATHRIGHT.
JUDGE ROBERT RIDDELL.

V. E. MUNCY, *Secretary.*

FACULTY.

(In the order of appointment.)

JAMES KENNEDY PATTERSON, PH. D., LL.D., F. S. A., *President*,
Professor of History, Political Economy, and Metaphysics.

JOHN SHACKLEFORD, A. M., *Vice-President*,
Professor of English and Logic.

JAMES GARRARD WHITE, A. M.,
Professor of Mathematics and Astronomy.

JOHN HENRY NEVILLE, A. M.,
Professor of Greek and Latin.

WALTER KENNEDY PATTERSON,
Principal of the Academy.

JOSEPH HOEING KASTLE, PH. D.,
Professor of Chemistry.

RURIC NEVILLE ROARK, A. B.,
Principal of the Normal School.

JOSEPH WILLIAM PRYOR, M. D.,
Professor of Anatomy and Physiology.

FREDERIC PAUL ANDERSON, M. E.,
Professor of Mechanical Engineering.

JAMES POYNTZ NELSON, C. E., M. E.,
Professor of Civil Engineering.

CLARENCE WENTWORTH MATHEWS, B. S.,
Professor of Agriculture, Horticulture, and Botany.

ARTHUR MCQUISTON MILLER, A. M.,
Professor of Geology and Zoölogy.

MERRY LEWIS PENCE, M. S.,
Professor of Physics.

SAMUEL MILLER SWIGERT, CAPT. 2D CAV., U. S. A.,
Commandant and Professor of Military Science.

PAUL WERNICKE,
Professor of French, German, and Spanish.

INSTRUCTORS.

JOHN LEWIS LOGAN, A. B.,
First Assistant in the Academy.

JOHN WESLEY NEWMAN, B. S.,
Assistant in the Normal School.

ROBERT LEE BLANTON, M. LIT.,
Assistant in Greek and Latin.

JOSEPH MORTON DAVIS, A. B., B. S.,
Second Assistant in the Academy.

VICTOR EMANUEL MUNCY, B. S.
Third Assistant in the Academy.

JAMES HENRY WELLS, B. M. E.,
Assistant in Mechanical Engineering.

JAMES RICHARD JOHNSON, B. M. E.,
Assistant in Shop-work and Drawing.

ERNEST FRANK BROWN, A. B.,
Instructor in Elocution.

OTHER OFFICERS.

MRS. LUCY BERRY BLACKBURN,
Monitress.

JAMES GARRARD WHITE,
Business Manager.

JOSEPH WILLIAM PRYOR, M. D.,
Surgeon of the Battalion.

MISS MARY HODGES,
Stenographer.

ROBERT LEE BLANTON,
Secretary of the Faculty.

The Professors of this College
deploring the untimely loss of their young associate,
WILLIAM ANDREW PATTERSON,
render here a tribute of their esteem and sorrow.

Born in Lexington, April 12, 1868;
Attained the degree of B. S., 1889;
Assistant in English, 1892–95;
Instructor in History, 1894–95;
Died June 3, 1895.

Bright, amiable, and endowed
with gifts that, improved by study and foreign
travel, gave promise of usefulness and distinction, he
passed, with calm assurance, from
mortal to immortal life
lamented by a multitude of friends,
who, recalling his fine qualities of head and heart,
will fondly cherish his memory.

KENTUCKY AGRICULTURAL EXPERIMENT STATION.

BOARD OF CONTROL.

HON. A. P. GOODING, *Chairman*, ... Mason County.
PRESIDENT JAMES K. PATTERSON, *Ex-officio*, ... Lexington.
DIRECTOR M. A. SCOVELL, *Ex-officio*, ... Lexington.
. . . . . .
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OFFICERS OF THE STATION.

MELVILLE AMASA SCOVELL,
Director.

ALFRED MEREDITH PETER,
First Chemist.

HENRY ERNEST CURTIS,
Second Chemist.

HARRISON GARMAN,
Entomologist and Botanist.

CLARENCE WENTWORTH MATHEWS,
Horticulturist.

VICTOR EMANUEL MUNCY,
Meteorologist.

MISS ALICE MCDOWELL SHELBY,
Stenographer.

DR. RICHARD JAMES SPURR,
Superintendent of Field Experiments.

JOSEPH NELSON HARPER,
Dairyman.

DEPARTMENTS AND COURSES OF STUDY.

The studies of the State College are distributed into fifteen Departments, each in charge of a responsible head, the heads constituting the Faculty. The Departments in chronological order are:

I. History, Political Economy, and Metaphysics.
II. Botany, Horticulture, and Agriculture.
III. The English Language and Literature.
IV. Military Science.
V. Chemistry.
VI. Mathematics and Astronomy.
VII. The French and German Languages.
VIII. The Greek and Latin Languages.
IX. The Academy.
X. The Normal School.
XI. Civil Engineering.
XII. Mechanical Engineering.
XIII. Anatomy and Physiology.
XIV. Geology and Zoölogy.
XV. Physics.

I. DEPARTMENT OF HISTORY, POLITICAL ECONOMY, AND METAPHYSICS.

PRESIDENT PATTERSON.

The course of instruction in this Department includes an outline of Ancient, Mediæval, and Modern History. Attention is given to the various forms of government, their characteristic features and points of difference, to the progress of civilization, the origin and development of parliamentary government, the rights and duties of citizenship.

In the period covered, Modern History and the History of England and the United States occupy the most prominent place.

Walker's Science of Wealth is made the basis of instruction in Political Economy. Students are, however, made familiar with the principles upon which rest the rival doctrines of Protection and Free Trade.

The study of Mental and Moral Philosophy extends through one year. Sir William Hamilton is used as the basis of instruction in Metaphysics, and Janet in Morals. Concurrently with recitations from these authorities, the pupil is made familiar with the principles upon which rival systems of philosophy and morals are based and the arguments by which they are maintained. Ancient and modern systems are thus brought under review, and the necessary data furnished upon which to ground intelligent opinions.

II. DEPARTMENT OF BOTANY, HORTICULTURE, AND AGRICULTURE.

PROFESSOR MATHEWS.

This Department occupies rooms for class instruction on the basement floor of the Experiment Station building. The main room or general laboratory is suitably equipped with the customary furnishings of laboratory tables, water and gas fixtures, charts, etc. The further equipment both for elementary work and for the use of advanced students is new and of the best quality, and includes an ample supply of compound and dissecting microscopes for the individual use of each student, several first-class microtomes, ovens and sterilizing apparatus, together with delicate balances and other apparatus for the study of plant physiology.

Among other facilities for study, the Department possesses a greenhouse (20 x 50 feet), giving an opportunity for the continuous study of living plants throughout the winter months and for experiment work in plant physiology.

The herbarium contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. It was primarily due to the efforts of Dr. Robert Peter, who made a quite extensive collection of Kentucky plants about sixty years ago, and also exchanged specimens with the prominent botanists of that day, thus forming the nucleus of the

present collection, which therefore possesses considerable historical value. Constant additions are now being made to the herbarium by collecting excursions over the State and by exchanges with other institutions.

The Department library is receiving constant accessions of carefully selected books, and already contains the most important botanical and horticultural works of reference, and these, as well as the best current literature upon these subjects, are freely available to students during college hours.

For the study of horticulture and agriculture, many of the appliances already mentioned are again utilized, and in addition the very complete equipment of the Experiment Station incidentally affords superior opportunities for the instruction of students.

The Horticultural Department of the Station (which is also under the charge of the Professor of Botany and Horticulture) has an excellent forcing and greenhouse plant upon the college grounds, consisting of four glass houses of the most approved methods of construction, containing 4,000 feet of glass, in addition to hot-beds, cold frames, etc., outside. These houses are run to their full capacity through the winter months in the conduct of experiments upon the culture of lettuce, radishes, tomatoes, cauliflower, and other vegetables under glass and upon the various methods of plant propagation.

The extensive list of varieties of vegetables and fruits growing upon the Experiment Farm gives an opportunity for a comparative study of varieties rarely if ever found upon the ordinary farm.

The College campus contains a large number of ornamental trees and shrubs, and these with numerous varieties of annual and perennial flowering plants give the pupil a good opportunity to study ornamental horticulture.

In the distinctively agricultural studies experiments of the farm department of the Experiment Station furnish an excellent opportunity for the study of the effects of various fertilizers, varieties of wheat, corn, and other field crops, and the many problems of dairying.

In order to give special attention to dairy experiments a building has recently been erected upon the Station Farm, and

fully equipped with the most modern appliances for the care of milk and the manufacture of butter and cheese.

All these facilities for the experiment work of the Station, while primarily designed for that purpose, can not fail to be of the greatest value as object lessons in connection with the studies of this department.

The general subjects of study comprised within the scope of this department are subdivided as follows:

I. INTRODUCTORY BOTANY.

This study is required of all Sophomores in the General Scientific, Agricultural, Biological, Chemical, and Normal courses. Beginning in September, the subject is pursued through the entire college year, and for all students is a prerequisite for admission to subsequent courses in botany.

The work of the year comprises a general survey of the plant world, and is designed to give the student who goes no further with the subject, a comprehensive view of the entire vegetable kingdom, while for the student who will continue his botanical study, it is intended to afford a substantial basis for more exhaustive special studies.

The laboratory method is the form of instruction principally used, and from the very beginning of his work the pupil is directed to a study of plants themselves, using the text-book as an aid to correct his mistakes and to enlarge his field of view. The student is early instructed in the use of the compound and dissecting microscopes, and with their aid he begins in the Fall term the study of the vegetable cell and its various modifications, together with types of the lower forms of plant life, proceeding from the simpler to the more complex, until at the beginning of the second half year the ferns are reached. From this time until the close of the year the student is given practice in the description and determination of species of ferns, grasses, and other flowering plants, in addition to a study of their structures.

In the course of the year class excursions are arranged to the Kentucky River and other points of botanical interest—sometimes in connection with the other departments of natural

history—for the purpose of collecting and studying the interesting flora of these various localities.

The text-books used are Bessey's Botany in the first, and Gray's Field, Forest, and Garden Botany in the second term.

II. HISTOLOGY, AND (III.) PLANT PHYSIOLOGY.

These two studies are designed to form a continuous course running through the Junior year, and are required of all Juniors in the Agricultural and Biological courses.

In Histology the student is given instruction and training in the methods of preparing vegetable tissues for microscopic study, and is encouraged to make a large number of permanent slides, which he can retain for his own future use.

The text-book used is Dudley and Thomas' Manual of Plant Histology.

The study of the tissues and organs of the plant under the microscope gives the pupil a preliminary knowledge which is important for the proper understanding of the functions of these plant parts, or Plant Physiology, which immediately follows Histology. This requires two afternoons of each week in the Spring term for laboratory experiments, in which the pupil follows McDougal's Manual of Plant Physiology, and is expected in addition to do considerable collateral reading.

In both of these studies constant references are made to such standard works as Strasburger's Practical Botany; the text-books on Plant Physiology of Goodale, Sachs, and Vines; De Bary's Comparative Anatomy of the Phanerogams and Ferns; Behren's Guide to the Microscope in Botany, etc.

IV. CRYPTOGAMIC BOTANY.

Required of Juniors in the Biological Course. Like the preceding subject, this study is arranged primarily as a laboratory course. It embraces the study of representatives, so far as practicable, of each of the lower classes of plants. The student uses as works of reference: Bennett and Murray's Cryptogamic Botany; De Bary's Fungi, Mycetozoa, and Bacteria; Goebel's Outlines of Classification and Special Morphology; the Manuals of Bacteriology of Sternberg and others; Wolle's Algae, etc.; Lesquereux and James' Mosses; Underwood's Ferns and their Allies; Atkinson's Biology of Ferns, etc.

V. ECONOMIC BOTANY.

This study is required of Seniors in the Agricultural Course, and is for the first half of the term, parallel in part with the preceding study, being concerned with injurious Fungi and methods of combating them. The remainder of the term is occupied with the study of the botany of cultivated plants, particular attention being given to the grasses.

VI. SPECIAL ADVANCED BOTANY.

Provision is here made for Seniors in the Biological Course to pursue some advanced line of study, assigned with reference to their individual tastes and requirements, and is intended to be a continuation of some special subject commenced in the earlier part of their course.

VII. HORTICULTURE.

Required in the Agricultural Course. The work in this subject begins in January of the Junior year and extends through two terms.

The time allotted to the subject is divided between lectures, recitations, and actual practice in horticultural operations, special prominence being given to the latter feature of the course.

In the lectures are discussed the principles underlying horticultural practices; the propagation of plants; the physiological considerations upon which are based the operations of budding, grafting, pruning, training, etc.; greenhouses, their construction, heating, and management; and vegetable, fruit, and landscape gardening. In connection with the lectures the work in the greenhouses and upon the college and experimental grounds is freely used for illustrative purposes, and occasional visits are made to the greenhouses, nurseries, market and fruit gardens, and the canning factory, all of which are well represented in or near Lexington.

In the practical part of his studies the pupil is not only taught the best methods of doing his work, but is encouraged to seek for the principles that make such methods best. He performs for himself the various operations of seed testing and seed

sowing; propagation by cutting, layering, division, etc.; budding, grafting, crossing, hybridizing, and other forms of horticultural practice.

In order to make this work of the highest value to the student, he is required throughout the course to make accurate observations and careful notes upon his progress, and upon the results of all these processes.

VIII. GENERAL AGRICULTURE.

Required of Juniors and Seniors in the Agricultural Course.

The subject is taught by means of text-books and lectures, and illustrated by the work of the farm, garden, and greenhouse, all of which are fully equipped. The first term is devoted to soils, their origin, character, and cultivation; draining and irrigation, fertilizers, farm economy, etc. The second term is occupied with the subject of breeds of stock, the principles of breeding and feeding, and milk, as to its production, and the manufacture of the various dairy products.

For the study of stock-breeding and kindred subjects the location of the College is exceptionally favorable, being situated in the center of the far-famed Bluegrass region of Kentucky, with its numerous herds of high-bred cattle and horses. In the entire work of this course material aid is rendered the student by the important experiments of the State Experiment Station, which are at all times available for observation and study.

THE COURSE IN AGRICULTURE.

The distinctive feature of this course is the instruction in those branches of study which bear the most direct and practical relation to agricultural pursuits. It includes as subjects of primary importance the study of general and agricultural chemistry, general zoölogy and entomology, botany, horticulture, geology, general agriculture, veterinary science, wood-work, and forging.

In addition to these subjects, the student devotes considerable time to the work of other Departments, including a year each in English and mathematics, courses in drawing, French and German, physiology, physics, and political economy.

THE SHORT (WINTER) COURSE IN AGRICULTURE.

In this course an opportunity has recently been provided for young men, who desire to excel in their chosen occupation of farming, to secure an elementary knowledge of those scientific principles which lie at the foundation of all success in agriculture. In order that such a course of study may not interfere with the work of the busy season upon Kentucky farms, it will begin in January, immediately after the Christmas recess, and will continue for eight weeks. Its aim is to give to ambitious young farmers accurate and practical information on such important topics as manures and commercial fertilizers; agricultural chemistry, soils and their origin; plant life on the farm; vegetable and fruit growing; diseases of plants; injurious insects; the principles of veterinary science, and the treatment of the simpler ailments of farm animals; the care and feeding of live stock; the dairy cow; milk, and the manufacture of butter and cheese.

In such subjects as will permit it actual practice will be given in the manipulation of material and appliances for study, such as the care of milk; practical butter making; spraying plants for injurious insects and diseases; and, in horticulture, the practices of seed sowing, pruning and training, grafting, etc.

This course affords to young men on farms, whose time and means are limited, an opportunity to utilize the winter months to the highest possible advantage by fitting themselves more thoroughly for their life-work.

No examinations are required for admission to this course, the only requirements being that the applicant must be of good moral character, must have had a good common school education, and be at least sixteen years of age, or preferably somewhat older, to fully profit by this course.

To residents of Kentucky instruction in this course will be free, the only expenses being the cost of a few books and other necessary incidentals, together with board and room and other personal expenses. Board and a room can be secured at prices varying from three to five dollars per week, so that the total expenses of a student during his entire eight weeks' stay need not exceed from thirty-five to fifty dollars.

Further information regarding this course may be obtained by addressing President Patterson or Professor Mathews at the College.

III. DEPARTMENT OF THE ENGLISH LANGUAGE AND LITERATURE.

PROFESSOR SHACKLEFORD.

PREPARATORY FRESHMAN CLASS.

First Term—Rhetoric and composition; diction and sentence construction, punctuation; recitations and exercises on the blackboard.

Second Term—Narrative composition; written essays, read in class and corrected; synonyms, prosody.

FRESHMAN CLASS.

First Term—English prose and poetry; interpretations of masterpieces of English prose and poetry; written essays, read in class and corrected.

Second Term—Studies in English literature.

Each pupil is required to commit to memory and recite in class selections from the great English poets and prose writers, including parts of Shakespeare's Julius Cæsar and the Merchant of Venice; Bacon's Essays on Studies and Friendship; Milton's L'Allegro and Il Penseroso and extracts from the Areopagitica; Bunyan's Golden City; Dryden's Alexander's Feast; Gray's Elegy; parts of Goldsmith's Deserted Village; passages from Burke's speech on the Spirit of Liberty in the American Colonies; Burns' Cotter's Saturday Night; Wordsworth's Intimations of Immortality; Coleridge's Hymn to Mont Blanc; the closing passages of Webster's speech in reply to Hayne; Byron's Prisoner of Chillon; Shelly's Ode to the Skylark; Bryant's Thanatopsis; Emerson's Essay on Compensation; Longfellow's Keramos; Holmes' Deacon's Masterpiece; Tennyson's Ulysses; De Finibus, by Thackeray; The Vision of Sir Launfal, by Lowell.

Text-book: Swinton's Studies in English Literature.

SOPHOMORE CLASS.

First Term—History of English literature; class reading from Bacon, Burke, Milton, Shakespeare, and other great English writers.

Text-books: Pancoast's Representative English Literature and Hudson's Annotated English Classics.

Second Term—Advanced rhetoric; lectures on the elements of criticism.

Text-books: Genung's Rhetoric; Minto's Manual of English Prose Literature.

JUNIOR CLASS.

First Term—The science of logic; lectures on pure logic, in which stoicheiology and methodology are explained and illustrated; explanations and illustrations of the Analytics of Aristotle and the New Analytic of Sir Wm. Hamilton; exercises in figure, mood, and reduction; lectures on fallacies and the sources of error; lectures on inductive and analogical reasoning; lectures on evidence.

Text-book: Jevons' Logic.

Second Term—Anglo-Saxon and early English.

Text-book: Corson's Anglo-Saxon and early English.

IV. DEPARTMENT OF MILITARY SCIENCE.

CAPTAIN SWIGERT.

Instruction in this Department is both practical and theoretical.

The Practical course embraces the U. S. Drill Regulation for Infantry, including the schools of the soldier, company, and battalion in close and extended order; ceremonies; so much of the Artillery Drill Regulations as pertains to the manual of the piece and mechanical maneuvers; signalling with flag and heliograph; guard duty and minor tactics.

Theoretical instruction embraces recitations in U. S. Drill Regulations for Infantry and Artillery; instruction in the preparation of reports and returns pertaining to a company; lectures on organization and administration of the United States Army, and general principles governing in the Art of War.

All students are required to take this course, and proficiency in it is as requisite for graduation as in any other Department.

Students must provide themselves with the regulation uniform of cadet gray cloth, which can be purchased for about fifteen dollars. No other outer dress, excepting an overcoat, shall be worn on any occasion. From this rule students may, however, be exempt when laboring in the field or in the shops.

V. DEPARTMENT OF CHEMISTRY.

PROFESSOR KASTLE.

The Chemical Department dates from the establishment of the institution. For many years it was under the direction of Dr. Robert Peter, who by his labors in analytical chemistry has done more probably than any other man to develop the abundant mineral resources of the State. The Department remained in the hands of Dr. Peter until 1887, when he resigned. Dr. E. A. Von Schweinitz was then appointed to the vacancy created by the resignation of Dr. Peter. He held the position during the collegiate year 1887–1888, when he also resigned, and then the present incumbent was appointed. For many years the chemical laboratories and lecture room occupied the eastern part of the main College building. In September, 1889, however, the Experiment Station building having been completed, the apparatus and equipment were moved from the laboratories in the main building to more suitable and beautiful rooms on the second floor of the Experiment Station building. The lecture room and the laboratories, qualitative and quantitative, of the Chemical Department are exceedingly well adapted to their purpose, and are among the best constructed and most handsomely furnished of the rooms in the College. The qualitative laboratory contains three very large working tables, each of which can easily accommodate ten students. The quantitative laboratory is also well equipped with tables, hoods, water, gas, electricity, etc., and has desk room for at least fourteen students in all. The lecture room is well lighted and heated and beautifully furnished and commodious, having a seating capacity of about seventy-five. Besides the laboratories and lecture room, there are several other small rooms on the same floor set aside for the use of the Chemical Department, an instructor's office, a balance-room and a storeroom.

APPARATUS.

The Department is well supplied with the commoner forms of chemical apparatus and chemicals. In addition to these it owns several of the more expensive pieces of apparatus, such as several exceedingly delicate balances for analytical work; a

grand model Bunsen & Kirchoff spectroscope; platinum apparatus; a complete outfit for electro-plating; vapor density apparatus; a glass model ice machine, etc. These of course will be added to from time to time as the needs of the Department demand and the resources of the institution permit; as it is now, however, the equipment is such as to readily permit the student to obtain at first hand a good working knowledge of chemical science.

COURSE IN CHEMISTRY.

The Chemical Course has lately been established with the view to preparing the student for life-work in the Science of Chemistry, and also with the view to fitting him for the study of medicine and kindred professions. To the accomplishment of this purpose the following course of study, extending over four years, has been adopted:

STUDIES REQUIRED.

The first year is devoted to the study of English, Mathematics, Algebra, Plane Geometry and Trigonometry, French, and Physiology.

The second year to Mathematics, Solid and Analytical Geometry, German, Chemistry, Botany, and Physics.

The third year to Chemistry, theoretical and laboratory practice, English, Geology, French and German, and Calculus.

The fourth year to Chemistry—advanced general reading, laboratory practice and original investigation, Economic Geology, History and Political Economy, Mental Philosophy, Logic, and Zoölogy.

THE TRAINING IN CHEMISTRY PROPER.

The study in Chemistry proper, as outlined in the above, is sufficient in its scope to bring the student in close contact with the great fundamental truths of the Science, and to make him enthusiastic and capable in his profession.

The course in General Chemistry, extending through the second five months of the second year, consists of lectures, laboratory work, and recitations five times weekly on the non-metals and their compounds and the simpler laws of chemical change. The lectures are abundantly illustrated by suitable and

instructive experiments; the laboratory work is carefully directed, and the student receives every possible encouragement to do excellent work.

In the third year the study of Chemistry is resumed with laboratory work and Theoretical Chemistry. The study of Theoretical Chemistry, consisting of lectures, recitations, and readings five times weekly during the first half year, is intended to acquaint the student with the greatest generalizations and theories of modern chemistry and their historical development. In this connection fifty lectures will be delivered upon the following general topics: Ten upon the Atomic Theory, its development, and the methods at present used in the determination of atomic weights; fifteen upon the Compounds of Carbon, Isomerism and Structural Formulæ; ten upon the History of Chemistry; five upon the Periodic Law; five upon the Spectroscope, Spectrum Analysis, and the Chemistry of the Heavenly Bodies; five upon the more important current chemical investigations.

By way of supplementing the work of the lecturer, students pursuing this course will be required to do a certain, rather liberal, amount of general reading upon the matter treated of in the lectures or upon such other topics as may be assigned by the instructor. For this purpose the nucleus of a chemical library has been formed, which may be freely consulted by any or all students in the College, and the leading chemical journals of this and other countries will there be kept on file. The broadening influences of such a course can scarcely be overestimated, and students who complete it satisfactorily will find themselves, in some measure at least, abreast of the highest and best chemical thought of our time.

The laboratory work during the first term of the third year is devoted to the study of the metals, and their more important compounds, and qualitative analysis. This work is intended to supplement the work of the first year upon the non-metals, and also to familiarize the student more fully with the commoner methods of chemical manipulation and practice. The laboratory work of the first term will be followed up during the second with laboratory work in quantitative analysis, by means of which the student learns the value of precise and accurate work, and the constancy and definite character of chemical reactions. The

chemical work of the last year will consist of such special work as the student may elect to pursue, together with the preparation of a thesis embodying the results of this special work. The object of such an arrangement is to perfect him in that particular branch of the science for which he shows a liking or a particular talent. In this connection it may be well to state that facilities are offered for special work along the following lines: Pure Chemistry, Organic Chemistry, Agricultural Chemistry, general analytical work, and special analytical work on fertilizers, iron and steel and fuels.

CHEMISTRY REQUIRED IN OTHER COURSES.

Instruction in chemistry in other courses of study, such as the Scientific, Classical, etc., is designed to meet their special needs in this direction.

In the Classical Course the study of this science extends over five months, five times weekly, and is intended simply to introduce the student to the subject by way of general education.

In the Scientific Course the work extends over ten months. A portion of this time is devoted to the study of the metals and qualitative analysis by means of laboratory work. In the course of Mechanical Engineering the instruction is adapted as completely as possible to the need of the students in this department. Instruction in chemistry in this course extends over a period of ten months; five of which are devoted to the study of the non-metals and their compounds; five to the chemistry of the metals with special reference to the properties which render them useful to the mechanical engineer, and also with reference to their mode of occurrence in nature and the methods of obtaining them from the ores.

For students in Civil Engineering a course in Elementary Chemistry has been provided, extending over five months.

For the benefit of students of Agriculture a special course in Agricultural Chemistry has been arranged, the general aim of which is to acquaint the student with the chemistry of those elements which enter into the composition of plants, and which are essential to their life and growth. A study of the composition of the soil, air, and water, and their several relations to the plant as sources of plant food, forms a large and important part

of this work. Also the chemistry of tillage, irrigation, and rotation, and the composition and value of commercial fertilizers and manures.

For students in Biology instruction in Chemistry is also adapted as fully as possible to their needs. Instruction in this branch extends over ten months, five times weekly. The first half of this time is devoted to the study of Elementary Chemistry; this is followed by laboratory work in the afternoon upon those elements which are regarded as essential to living things, animal and vegetable.

VI. DEPARTMENT OF MATHEMATICS AND ASTRONOMY.

PROFESSOR WHITE.

A thorough knowledge of Arithmetic and of Algebra through quadratic equations, as presented in Wentworth's Higher Algebra, is required for admission to the Freshman class.

FRESHMAN YEAR.

Text-books: Wentworth's Higher Algebra, Wentworth's Plane and Solid Geometry, Wentworth's Trigonometry.

The first term is devoted to the study of Geometry. Books I. to V. inclusive.

During the second term Algebra and Plane Trigonometry are studied simultaneously; the work in Algebra being chapters XXII. to XXIV. inclusive.

SOPHOMORE YEAR.

Text-books: Wentworth's Plane and Solid Geometry, Bowser's Analytical Geometry.

The studies of the first term are Solid Geometry and Conic Sections, the entire second term being given to Analytical Geometry.

JUNIOR YEAR.

Text-book: Bowser's Calculus.

The study of Calculus is optional with all students except in the Mechanical and Civil Engineering Courses.

SENIOR YEAR.

Text-book: Young's Elements of Astronomy.

The object of this class is to give to the students a knowledge, as accurate and as extensive as our time will permit, of the phenomena of the heavenly bodies and of their probable condition and history. No efforts will be spared to make the study of this branch of science highly interesting and instructive.

VII. DEPARTMENT OF FRENCH AND GERMAN.

PROFESSOR WERNICKE.

1. German.

FIRST SESSION.

First Term—C. Thomas' German Grammar to the verb; oral exercises.

Second Term—Van Daell's German Reader, Part I.

SECOND SESSION.

First Term—Hoffmann's Historische Erzählungen, Schiller's Jungfrau von Orleans, Harris' German Composition.

Second Term—Schiller's Lied von der Glocke, Freytag's Journalisten, an essay on a quotation from Schiller's Glocke.

THIRD SESSION.

(*Optional*)—Dippold's Scientific German Reader, conversational exercises, Bernhard's Literaturgeschichte.

2. French.

FIRST SESSION.

First Term—Chardenal's Complete Course, to the irregular verbs; Whitney's Introductory French Reader, Part I.

Second Term—Chardenal's Course and Whitney's Reader completed; oral exercises and dictations.

SECOND SESSION.

First Term—Edgren's French Grammar; Super's Readings from French History; some of Béranger's songs committed to memory.

Second Term—Edgren's Syntax; Corneille's Cid; Molière's Misanthrope; La Fontaine's Le Chêne et le Roseau memorized and made the subject of an essay.

THIRD SESSION.

(*Optional*)—Duval, Histoire de la Litérature Française; selections from modern French literature.

3. Spanish.

First Term—Edgren's Brief Spanish Grammar.

Second Term—Knapp's Spanish Readings; exercises in grammar.

VIII. DEPARTMENT OF GREEK AND LATIN.

PROFESSOR NEVILLE.

1. Latin.

FIRST SESSION.

Bingham's Latin Grammar—the study involving a daily exercise in inflection and in translation from and into Latin on the blackboard; Gradatim (194 Latin stories), or Viri Romæ.

SECOND SESSION.

Five books of Cæsar, or two books of Cæsar and twelve lives of Nepos; six books of Virgil; exercises in writing Latin; Sallust's Catiline or Cicero de Senectute.

THIRD SESSION.

Livy, Books I. and XXI.; six orations of Cicero; a play of Terence, or thirty letters of Pliny; the first forty exercises of Arnold's Latin Prose Composition.

FOURTH SESSION.

Horace, except a part of the Epodes and Satires; the second forty exercises of Arnold; Tacitus, Germania and Agricola; the I., III., VII., VIII., and X. Satires of Juvenal, or, instead of the VII. and VIII., an essay of Seneca.

2. Greek.

FIRST SESSION.

White's Beginner's Greek Book, with a daily exercise in inflection and translation on the blackboard.

SECOND SESSION.

Five books of the Anabasis; six of the Iliad; exercises in Greek syntax.

THIRD SESSION.

Selections from Herodotus; Plato's Apology and Crito; six orations of Demosthenes; dialogues of Lucian.

FOURTH SESSION.

Two books of Thucydides; three Greek dramas (Prometheus, Medea, Œdipus Rex.)

IX. THE ACADEMY.

This, the Preparatory Department, will be described after the Collegiate Departments.

X. THE NORMAL SCHOOL.

PROFESSOR ROARK.

Although organized as a Department of the College co-ordinate with the other departments, yet the Department of Pedagogy is more properly a school in itself, made so by the necessities of the Public School system of the State. Therefore, in addition to offering full work in Pedagogy (Educational Psychology and its applications in School Economy and Educational Methods), this Department also provides academic instruction for teachers who desire to fit themselves for higher grades of work. In administering the Department, the real needs and limitations of the average Public School teacher are kept constantly in view, and the elevation of the common schools of the State is the basic principle of the work.

The teacher must be possessed of three things in addition to an upright and sterling character and a healthy body. These three things are: (1) An adequate knowledge of what he proposes to teach; (2) skill in teaching—knowledge of how to teach;

(3) some broad and liberal culture wherewith to illuminate his work and increase its value. These three things it is the business of the Teacher's Training School to give.

1. *An adequate knowledge of the branches to be taught.*—The giving of this knowledge is academic work primarily. But this academic instruction should be given with the fact constantly in view that "The student will teach as he is taught, rather than as he is taught to teach." The instruction in Arithmetic, Physiology, Grammar, etc., is designed to illustrate to the teacher-pupils in the various classes the latest and best methods of teaching these subjects.

2. *Skill in teaching—the knowledge how to teach.*—This can be acquired best by successful practice, but there is a science as well as an art of teaching. Teaching must not be wholly empirical. There are fundamental principles upon which all true teaching rests, and the purpose here is to fix these principles in the minds of the pupils. It is the carrying out of these principles, their successful and practical application, that lifts the work of the teacher to the dignity of a profession. It is the direct inculcation of these principles and the practical drill in their application that distinguish the Teacher's Training School from all other schools. The Teacher's Training School should work in the faith that teaching is the highest profession, and the atmosphere of such a school should be filled with the professional spirit.

Since the principles of the science of education rest on the activities and processes of the growing mind, special attention is given to Educational Psychology. A study of this subject is followed by a thorough drill in School Management and the most rational and effective Educational Methods. The principles of management and methods are constantly presented in their relations to the principles of Psychology. Finally, the student is introduced to the history of his profession abroad and at home. The course in Pedagogy proper, then, consists of Educational Psychology, Management in Education, Method in Education, and the History of Education.

3. *Some broad and liberal culture.*—He who knows only the subjects he has to teach, and something of how to teach them, is not yet a teacher. He must know as much more as he can; must have some knowledge of subjects higher than the branches he

will be called on to teach, and different from them. Human knowledge is so interrelated that otherwise he can not have the copiousness of illustration necessary to make the simplest and commonest facts as clear as they should be. The *relations* of facts must be taught—hence the growing need of liberal culture, a widened horizon for the teacher.

The courses offered in this department are believed to be such as will meet the requirements above set forth, and also satisfy the practical needs of the educational system of the State.

COURSES IN PEDAGOGY.

The *Professional Course* leading to the degree of B. Ped. (Bachelor of Pedagogy) is intended to cultivate the professional spirit, to give a general education, and to fully equip those who complete it for teaching successfully in any grade of public school, or in any academy or college.

The *State Diploma Course* is arranged to enable those teachers who have the age (24 years), and experience (2 years in this State), required by the school law, and who already hold a State certificate, or are otherwise properly qualified for taking the course, to prepare by one year's work to pass successfully the examination for State Diploma.

The *State Certificate Course* is open to those who have the legal qualifications of age (21 years), and experience (2 years), and who hold first class, or high grade second class, county certificates, or are otherwise prepared to undertake the work of this course. The aim is to fit such students to take successfully the examination for State certificate. The time required is five months, *beginning in mid-winter.*

The *County Certificate Course* is designed to prepare teachers for the county schools of the State. Preparation for properly passing the county examination may be made in one year or in five months, according to the previous preparation of the matriculate. Since by far the larger number of those who take this course enter it after the Holidays, the second term is divided into two terms of ten weeks each, and thus teachers can review all the common branches during the second half year.

It will be seen upon reference to the schedule, page 62, that *Drill Work in Forensics, i. e.*, in essay writing, speaking and

debating, is an important feature of the Normal School. Ability to express fluently and correctly is of the utmost value to the teacher, and can be gained only by constant practice. The Forensic Drills will occur once a week, with special exercises once or twice each term.

The *Pedagogy Drill* will occur daily during the last quarter of each year, and is intended to give valuable training in the Science of Teaching.

The *Preparatory Course* is provided for in the Academy, and fits the student to enter the full Professional Course of the Normal Department.

Text-books: In the Professional Course the text-books are those used in the same branches in the other four years' courses of the College. In the work in Pedagogy the books used are Roark's Psychology in Education, Brooks' Normal Methods, White and Baldwin's School Management, and Painter and Williams' History of Education. In the State Diploma and State Certificate courses, besides these books, Kellogg's English Literature also is used. In the County Certificate Course the books used are Ray's Arithmetics, Wentworth's Higher Algebra, Peterman's Civil Government, Chittenden's Elements of English Composition, Butler's Geography, Holbrook's Complete Grammar, Eggleston's History of the United States, Smith's History of Kentucky, Martin's Human Body (smaller edition), and Roberts' Rules of Order.

APPOINTMENTS.

Each legislative district of the State is entitled to send to the Normal School every year four properly appointed students, of either sex. Appointments are made by the County Superintendents (see page 92, Section 15, School Law of 1894,) between the first day of July and the thirty-first day of December. Appointments should be certified to the President of the State College as soon as they are made. Appointees secure all the advantages indicated on page 96. They do *not* receive mileage unless they remain in school during the full collegiate year.

Appointments to the Normal School are good for *one* year. Those who are ready to enter the Freshman Class of the full four years' Professional Course should see that their appoint-

ments are made for the *College* and not for the Normal School. Appointments made for that course as a college course are good for four years.

CALENDAR.

First Term opens September 10, 1896.
Second Term opens January 18, 1897.
First Review Term of 10 weeks opens January 25, 1897.
Second Review Term of 10 weeks opens March 29, 1897.
Students should enter as early in the term as possible.

XI. DEPARTMENT OF CIVIL ENGINEERING.

PROFESSOR NELSON.

The course in Civil Engineering is planned so as to acquaint the students with those subjects the knowledge of which is necessary to enable the civil engineer to develop himself into a skilled practitioner of his profession in any of its several branches. So far as is possible, the importance of each subject taught is illustrated by its application to some work similar to that which is met with in actual practice. An effort is made to render the course valuable not only for its professional uses, but also for an educational purpose, so that the graduates of the Department of Civil Engineering may be prepared for work other than that in their profession. Therefore, while the student is learning each subject both theoretically and practically, the training of his mind as well as the needs of his profession is kept in view. In addition to the purely technical matters included in the course, provision is made for the study of English, History, and Political Economy.

I. FRESHMAN YEAR.

During the first year, the student is occupied largely with subjects that are preparatory to the technical branches of the course. English Literature and the elements of Algebra, Plane Geometry, and Trigonometry are completed. In the latter half of this year Plane Surveying is begun, and is taught chiefly by work in the field. The results of this field work are treated in the drawing-room as may be necessary. This early practical work consists of measuring areas, dividing land, triangulation to ascertain distances both horizontal and vertical, the careful meas-

urement of base lines and the use of stadia, plane table, transit, compass, level, rods, chains, and tapes. The adjustments of the instruments are practiced, so that the student who completes successfully the work of this year, has mastered the simpler problems of surveying and other field work sufficiently to be prepared for employment as a leveler or transit-man in a field-corps, and as an assistant in making calculations which depend on the use of trigonometrical functions and formulæ. Thacher's Slide Rule and the simpler forms of such aids to rapid computations are used whenever they facilitate work.

Students in other departments than that of Civil Engineering can enter the class in surveying when prepared to do so, since such work is done chiefly in the afternoon. Thus they can learn to handle those problems in Plane Surveying which relate to the dimensions, area, and division of land.

Throughout this year, Draughting is practiced for the purpose of mastering the use of the instruments and of learning the art of accurate and skillful drawing and neat lettering. Some work is done in projectional and perspective drawing, both in plain lines and in colors. Field work is platted. Studies are made of standard structural drawings, and some simple structures are designed.

Text-books: Merriman and Brooks' Hand-book for Surveyors, with references to the texts of Davies, Gillespie, Hodgman, and to Webb's Engineering Instruments; Mahan's Drawing.

II. SOPHOMORE YEAR.

The Mathematical Course is pursued through Analytical Geometry. The subjects of Chemistry and Physics are studied. Descriptive Geometry is taught so as to train the student to handle problems in projections, intersections, tangencies, and developments of surfaces. Practical application is made to work in shades, shadows, and perspective drawings.

In Railway Location attention is paid to the proper location, construction, and equipment of Railways. Actual Surveys are made, and the necessary maps, profiles, and cross-sections are prepared by the students. The quantities of excavation and embankment are then calculated, so that a knowledge of such practical work is acquired. The subject of Highway Construc-

tion is studied, embracing especially the pavements and streets of cities.

The study of structures is begun, and the graphical method of ascertaining stresses in the members of roof-trusses and simple bridges is practiced. Structures of this kind are designed, and the dimensions of their details are determined.

In the field the use of the various instruments is practiced. In the drawing-room standard designs of structures of railway appliances are studied, and original designs of these are made.

The completion of this year's course prepares a student to act as assistant in the field-work of railway location and construction, and as an efficient draughtsman in office-work. It acquaints him with the beginnings of structural designing and dimensioning, and enables him to handle intelligently problems in the stability of roofs and bridges.

Text-books: Searles' Field Book; Greene's Roof Trusses; and references to other authorities.

III. JUNIOR YEAR.

The Calculus and Spherical Trigonometry are studied. The economics of railway location are examined. Attention is paid to the subjects of yards, stations, signals, brakes, etc., and to the administration of the several departments of a railway. The yards in Lexington offer an excellent opportunity for students to observe the practical use of appliances. The graphical method of making time-cards is illustrated with the cognate matter of train rules and train dispatching.

The Theory of Mechanics is studied analytically after the methods of the Calculus. In Practical or Applied Mechanics the strength of materials is discussed theoretically, and practical illustrations are made by the use of the fine testing machines in the Mechanical Laboratory. Here the students learn to ascertain for themselves the proper constants for the various formulæ, and are taught the principles of inspection.

Electricity and Magnetism occupy the student during a part of the second half of the year, so that he may get a knowledge of questions relating to the proper construction and handling of electric railways.

Advanced Surveying, and methods of finding latitude, longitude, time, and azimuth are included in this year's work, and in this connection the elements of Spherical Trigonometry and their application to Practical Astronomy are studied.

The subject of the strength and stability of structures forms a large part of this year's course, and is studied both analytically and graphically, and the results are applied especially to the designing of bridges and arches.

Field-work is practiced, and work in drawing-room includes the preparation of designs for structures and the making of topographical maps, and the study of the various map projections.

In Masonry and Stereotomy the properties of materials used in stone structures are discussed, with especial attention to cements. Students use the cement-testing machine in this connection. The stability of walls and arches is studied. The method of shaping stones for such structures and of laying out such work is taught, with practice in cutting forms in plaster of Paris.

In the Mechanical Laboratory, the students work with the several testing machines, where they study the behavior of specimens of steel, iron, wood, and other substances, under various strains.

Those who complete this year's work are fitted to fill engagements in some of the higher branches of the profession, where they can serve with efficiency as assistants in conducting important surveys, and in the erection of structures both in the field and in the office. They are prepared to inspect material.

Text-books: Patton's Civil Engineering; Johnson's Surveying; Baker's Instruments; Greene's Graphics; Merriman's Mechanics; Bowser's Mechanics; DuBois's Strains in Framed Structures; Bovey's Framed Structures; Baker's Masonry; Lectures on Railways, and references to other authorities with which the library of the Department is supplied.

IV. SENIOR YEAR.

The study of History and Political Economy is pursued during the year under the direction of the President of the College.

Much time is now devoted to the study in detail of bridges and other structures. Plans, specifications, and working draw-

ings of designs by students are prepared, and standard specimens of work of this kind, kindly contributed to the College by the best bridge companies and other builders, are carefully discussed.

The work in the drawing-room is conducted as nearly as possible after the manner followed in well-ordered engineers' offices. The student learns to use the drawing-board as the constant means of reducing his investigations to a practical form.

The subjects of Hydraulic Engineering and Sanitation are studied with a view to their application to the varied and growing demands of municipalities and to the regimen of streams. The principles of hydraulics and the laws of hydrostatics and of the flow of water are taught both theoretically and, so far as possible, practically. Sanitation is studied with reference to the proper disposal of sewage and to the drainage of cities, and questions affecting the health of the public are examined.

Methods of Geodetic Surveying, with the application of the principles of least squares, are studied and practiced, including a short examination of the figure of the earth.

Economic Geology in its relation to building materials occupies the student during the latter half of this year.

A short course in Mining is given, including methods of drainage, ventilation, lighting, handling of ore, and construction of entrances.

The student applying for graduation devotes a large part of the latter half of this year to the extended study of some assigned problem in engineering which serves as his thesis.

During the whole of this year the opportunity is given for specialized work in some one or more of the several branches of Civil Engineering, while at the same time the general educational value of the course is cared for, so that the graduates may be not only fitted for skillful work as civil engineers, but also prepared to meet the varied demands made upon educated men.

Text-books: Merriman's Hydraulics; Bovey's Hydraulics; DuBois's Framed Structures; Johnson's Framed Structures; Bovey's Theory of Structures; Gore's Geodesy; Merriman's Least Squares; Callon's Lectures on Mining; Bowie's Hydraulic Mining.

Graduates in this course receive the degree of Bachelor of Civil Engineering (B. C. E.). They are ready for the practice of their profession in the branches elected by them, depending for their ultimate success on their subsequent devotion to and peculiar fitness for their calling, and on their zealous pursuit of the studies begun in this course.

The Department is supplied with transit, level, plane table, solar attachment for transit, compass, chains, rods, and delicately adjusted tapes for accurate base-line measurements. The drawing-room contains the finer and more costly instruments, while each student purchases for his own use the ordinary ones. Perishable drawing-material is supplied by the Department without extra charge. The library of this Department and that of the Department of Mechanical Engineering are combined, and under proper regulations the students have free access to standard text-books and to leading periodicals.

POST-GRADUATE COURSE AND DEGREE.

For the post-graduate degree of Master of Civil Engineering (C. E.) the requirements are indicated on page 63.

XII. DEPARTMENT OF MECHANICAL ENGINEERING.

PROFESSOR ANDERSON.

EQUIPMENT AND FACILITIES.

This department was organized August, 1891, and is now one of the most completely equipped in the College. Mechanical Hall contains a floor area of about 20,000 square feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in Mechanical Engineering. The building contains three recitation rooms, two drawing-rooms, three offices, a wood and pattern shop, two boiler rooms, washroom, tool room, engine room, two machine shops, blacksmith shop, foundry, and two large rooms devoted to experimental engineering. A first-class technical library is at the disposal of all students in Engineering. The equipment of the different rooms is briefly described below:

The drawing-rooms contain drawing-tables, drawing-boards, curves, scales, T-squares, and other special drawing apparatus, to accommodate one hundred students.

The engine-room contains a 10-inch by 24-inch Hamilton-Corliss non-condensing engine, which supplies the motive power for all the work-shops.

The wood-shop contains twenty benches, each with a complete set of wood-working tools, thirteen wood-turning lathes, each with a complete set of turning-chisels, band-sawing machine, universal wood-worker, wood-trimmer, fret saw, double circular saw, and grindstone.

The foundry contains a 30-inch cupola furnace, with a capacity of a ton of metal per hour, a brass furnace, twelve complete sets of moulders' tools, twelve benches; also, ladles, clamps, core-room, core-oven, pattern-rack, and the tools used in a practical foundry.

The blacksmith shop contains a 10-inch steel pressure blower, twelve forges, twelve anvils, three blacksmith vises, an emery grinder, and twelve complete sets of blacksmith tools, for carrying on all kinds of iron and steel forging; a power spring-hammer, designed and built by the students, forms part of the equipment of the blacksmith shop.

The machine-shop contains six lathes, one milling machine, one self-feed drill, one hand-feed drill, one planer, one shaper, one tool-grinder, one dry emery grinder, one wet emery grinder, one universal grinding machine, two sensitive drills, and twelve iron vises and benches for vise work in metal.

The tool-room is equipped with a fine assortment of superior tools for work in iron, steel, brass, and wood, and contains such stock and supplies as may be used in constructions in the mechanical laboratories named above.

The wash-room contains lockers for one hundred students, and is supplied with marble basins.

The boiler-houses contain, respectively, a fifty-one horse-power Babcock and Wilcox water-tube boiler, a Dean Bros.' No. 3 steam-pump, and a fifty-five horse-power tubular boiler, and a Davidson No. 3 steam-pump.

The Experimental Laboratory is the best equipped in the South, and besides being well supplied with steam-engine indicators, planimeters, steam-gauges, pyrometers, reducing motions, scales for measuring, micrometer and vernier calipers, thermometers, calorimeters, sieves, cement samplers, scales for weighing,

extensometers, water-meters, etc., it contains a thirty-five horse-power Westinghouse compound engine, a forty horse-power cross compound throttling engine, a twenty-five horse-power automatic cut-off engine, a ten horse-power Corliss engine, a thirty-five horse-power Buffalo automatic cut-off engine, a ten-kilo-watt Crocker-Wheeler dynamo, an 8½ kilo-watt Edison dynamo, a 9 kilo-watt General Electric Company multipolar dynamo, a 3½ kilo-watt electric motor, a ¾ kilo-watt electric motor, a Brackett-cradle dynamometer, several Prony brakes, a 1,000 pound United States Standard cement testing machine, and a 100,000 pounds Riehle testing machine. The equipment of the Laboratory is such that any problem relative to Steam and Electrical Engineering will be discussed practically.

Course of Study.

The training given in this course, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in mechanical engineering work. The practical work extends over a period of two years and includes the most important principles and operations in bench work in wood, wood turning, pattern making, foundry work, iron and steel forging, and hand and machine work in metal.

The theoretical work during the first two years consists of a thorough training in English, Chemistry, Mathematics, Physics, and Drawing; and during the last two years the fundamental principles of boiler, machine, and engine design are taken up. By a careful solution of practical problems the student becomes familiar with the process carried on by the operators and designers of successful machine plants.

The course in Mechanical Engineering involves three separate lines of work:

1. *Mechanical engineering*, the object of which is to give that training necessary to fit men to be operators and designers of steam machinery.

2. *Chemical engineering*, intended especially to give the knowledge requisite for the successful operation of iron and steel plants and the analysis of iron, steel, coals, and refractory substances.

3. *Electrical engineering*, in which the theory, design, building, and operation of dynamos and motors are predominant.

During the Freshman and Sophomore years the work for all students in the Mechanical Engineering Course is identical, but during the Junior and Senior years a student is granted the privilege of electing one of the three lines of work indicated above.

The course of study in Mechanical Engineering, extending over a period of four years, leads to the Degree B. M. E. (Bachelor of Mechanical Engineering). The advanced Degree of Mechanical Engineer may be obtained by resident students in one year after taking the degree of B. M. E. from the State College of Kentucky or any other institution of equal requirements, they having successfully carried on work laid down, passed a satisfactory examination, and presented an acceptable thesis. The advanced degree may also be taken in three years after obtaining the degree of B. M. E., provided the student has been engaged during the period of three years in practical engineering work, passes a satisfactory examination at the College and presents an acceptable thesis.

FRESHMAN YEAR.

Technical Instruction—Twenty-six weeks, three hours per week. (*a*) Recitations on the forms of wood-working tools, and the cutting and peculiarities of timber. (*b*) Lectures on the operation of the various forms of wood-working machinery. (*c*) Lectures on pattern-making, moulding, and casting.

Mechanical Drawing—Twenty-six weeks, six hours a week, and ten weeks, ten hours a week. This drawing includes free-hand sketches, drawing from copies and models, using parts of machines in the Mechanical Laboratories as models.

Shopwork—Thirty-six weeks, twelve hours a week. (*a*) Bench-work in wood, including exercises in the following operations: Planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenters' tools. (*b*) Wood turning, involving the various principles of lathe-work in wood. (*c*) Pattern-making, which gives the student discipline in the construction of patterns for foundry work. (*d*) Foundry work, including the various operations of moulding, core-making, and the melting of iron and brass.

English—Thirty-six weeks, five hours per week.

Algebra—Twelve weeks, five hours per week.

Geometry—Seventeen weeks, five hours per week.

Trigonometry—Nineteen weeks, five hours per week.

SOPHOMORE YEAR.

Technical Instruction—Sixteen weeks, one hour per week. (*a*) Lectures on the handling of iron and steel in forging, and the methods of tempering and annealing steel. (*b*) Lectures on modern machine-shop practice.

Mechanical Drawing—Sixteen weeks, four hours per week; thirty-six weeks, five hours per week. (*a*) Drawing the parts of machines and complete machines to scale. (*b*) Exercises in tinting and shading.

Shopwork—Thirty-six weeks, twelve hours per week. (*a*) Exercises in iron and steel forging. (*b*) Exercises in vise-work in metal. (*c*) General machine work, including screw-cutting, drilling, planing, and the milling of iron, brass, and steel.

Descriptive Geometry—Nineteen weeks, five hours per week.

Physics—Seventeen weeks, ten hours per week.

Solid Geometry—Seventeen weeks, five hours per week.

Analytical Geometry—Nineteen weeks, five hours per week.

Chemistry—Nineteen weeks, five hours per week.

JUNIOR YEAR.

Kinematics—Seventeen weeks, five hours per week. Under this head are studied the velocity ratios in various motions, construction of gears, cams, quick return motions, straight line motions, epicyclic trains, parallel motions, and the manner of designing trains of mechanism.

Mechanical Drawing—Thirty-six weeks, six hours per week. The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines used in actual construction in the laboratories.

Metallurgy—Twelve weeks, six hours per week. The above includes the study of fuel and refractory substances, and the process employed in puddling iron and making steel.

Chemical Laboratory—Seventeen weeks, six hours per week.

Analytical Mechanics—Nineteen weeks, five hours per week.

Strength of Materials—Nineteen weeks, five hours per week.

Heat—Seventeen weeks, five hours per week.

Physical Laboratory—Seventeen weeks, six hours per week.

Chemistry—Twenty-four weeks, five hours per week.

Magnetism and Electricity—Nineteen weeks, five hours per week.

SENIOR YEAR.

Thermodynamics—Twenty-six weeks, six hours per week. This work consists of a study of the laws of thermodynamics, thermal capacities, and the application of thermodynamics to the steam-engine.

Steam Boilers—Seventeen weeks, five hours per week. A study of the various commercial steam boilers, consumption of fuel, incrustation, determining the horse-power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of power transmission.

Valve Gearing—Seventeen weeks, five hours per week. The study of various forms of standard engine valves and methods of designing.

Mechanical Drawing—Seventeen weeks, ten hours per week. This consists in working out practical designs of boilers and steam-engine valves.

Engine and Machine Designing—Fifteen weeks, five hours per week. A study of the modern methods of designing engines and machines for strength as well as motion.

Experimental Engineering—Fifteen weeks, ten hours per week. Includes a study of the steam-engine indicator, making engine, boiler, belt, and materials for constructing tests.

Political Economy—Fifteen weeks, five hours per week.

Theory and Practice of Photography—Seventeen weeks, five hours per week.

Dynamo-Electric Machinery—Nineteen weeks, five hours per week.

History—Twenty weeks, five hours per week.

Dynamometers and Measurement of Power—Twelve weeks, five hours per week.

Thesis Work—Nineteen weeks, twelve hours per week.

Every student, before he attains the degree of B. M. E., must present a satisfactory thesis on some new design of a machine, or an original investigation.

The greater part of the second term of the Senior Year is given to the preparing of this thesis. The subjects for theses are assigned to students by the Professor of Mechanical Engineering, and the completed theses are kept on file with the college records, that they may serve as a reference for future investigators.

XIII. DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

PROFESSOR PRYOR.

Anatomy, Physiology, and Hygiene are taught to students of the Classical, Scientific, Biological, Veterinary, and Normal courses extending throughout both terms of the Freshman year.

At the beginning of the second term a special class is organized for the benefit of Normal students. A thorough working knowledge of these branches is taught by means of lectures, demonstrations, and recitations.

This department is well provided with the apparatus necessary to illustrate the work of the student. The equipment includes papier-mache manikin, and models (Auzoux) of eye, ear, larynx, etc., skeletons, charts, microscopes, etc. Sufficient Histology is given for all practical purposes.

To those who intend to apply themselves hereafter to the study of medicine this department offers inducements seldom obtained in other educational institutions.

Text-books: Huxley and Youman's; Martin's Human Body and Martin's Briefer Course.

XIV. DEPARTMENT OF GEOLOGY AND ZOÖLOGY.

PROFESSOR MILLER.

EQUIPMENT AND FACILITIES.

This department occupies rooms in two buildings.

The Geological Room in the Main building is fitted up with cases and laboratory tables. The former are filled with a classified collection of fossils and minerals illustrative of both general and local geology. The collection of fossils from different portions of the State is especially complete. Besides a department library of geological literature, containing nearly perfect sets of Reports of both this and neighboring States, and the valuable publications of the U. S. Geological Survey; a very full set of geological maps, charts, models, lantern slides, and photographic illustrations the result of many years' accumulation, are available for purposes of instruction.

In addition to the facilities afforded by the in-door equipment, the situation of the College itself happens to be peculiarly favorable from a geological standpoint. Located, as it is, in the center of the Blue Grass Region, at the base of the Geological Series of the State, it affords logically the best starting point for the student of Kentucky geology, who would gain a clear comprehension of how the rock foundations of his State have been laid. Both for this reason, therefore, and because geology is preëminently an out-door study, the "Excursion" is made a prominent feature of the instruction in this Department. It is by the field work these excursions afford that the student's ability to apply in-door knowledge previously acquired, is put to the test, and his powers of making generalizations in the open air are exercised.

The Zoölogical Laboratory in the basement of the Experiment Station is provided with tables and a special set of apparatus, including compound microscopes, for each student. Besides this there is a complete general equipment for all lines of zoölogical work, such as: a full set of zoölogical charts imported from Germany for use in the study of systematic Zoölogy; microtomes and paraffine baths for work in microscopy; a selection of Ward's skeletons to illustrate osteology; alcoholic specimens of both marine and inland forms to illustrate general zoölogy, with duplicates for class dissections; and finally the Department is equipped with a library of standard zoölogical literature, including the leading periodicals devoted to the interests of biological science. Moreover, opportunities for collecting zoölogical material as well as for studying the habits of living animals, are afforded by the "Excursions" mentioned above.

Branches of Study.

(A) Geology.

The exact time in a student's course at which the different subjects comprehended under this general title are studied, varies somewhat for the different courses; but the order of succession is as follows: 1. Palæontology, 2. Mineralogy, 3. Advanced Geology. Besides these, in which what follows is intimately based upon what precedes, are three self-contained studies: 4. Physiography, 5. A Shorter Course in Geology, and 6. Economic Geology.

PALAEONTOLOGY.

Second Term—Required of Juniors in the Biological, Scientific, and Bachelor of Pedagogy courses. Lectures on the nature and zoölogical positions of different fossil groups are given, and the student is expected to become familiar with the fossils themselves by actual examination. Much of the work involves the use of artificial keys for determination similar to those used in Botany and Zoölogy. Special attention is paid to the fossils common in Kentucky. The collections of the Department are well suited for this purpose. The instruction is entirely by lectures and laboratory work.

MINERALOGY.

Second Term—This study follows Palæontology, with which it shares the time of the term. Required of the same students as the Palæontology. The object of this study is to render the student familiar with the composition and physical characteristics of those common minerals and rocks likely to come under his notice, as well in the ordinary round of every-day observation as in geological pursuits. The instruction involves both laboratory and text-book work. Crosby's Tables for Determination and his Common Minerals and Rocks are the books used.

ADVANCED GEOLOGY.

First Term—Required of students in the Biological, Scientific, and Bachelor of Pedagogy courses, and open to all others who may have elected to take the Palæontology and Mineralogy, which preceed. It is meant to be the culmination for those who have availed themselves of all the opportunities for the study of Geology offered in this Department. It is to be hoped that some of these students may be induced to go further, and either in their home localities or elsewhere make a beginning at doing original work. Kentucky, with its large amount of territory practically unexplored geologically, offers an especially fine field to young geologists.

Text-book: LeConte's Elements.

PHYSIOGRAPHY.

First Term—Required of students in the Classical Course. Normal students have the option between this and the Shorter Course in Geology, unless they are candidates for the degree of

B. Ped., in which case they take the same Geology as matriculates in the Scientific Course.

The object of this study is to give the student a somewhat comprehensive view of the earth and its inhabitants. Facts and theories in Physics, Biology, Geology, and Astronomy are enlarged upon at greater length than is usual in studies commonly included under the name of Physical Geography. Physiography is especially adapted to those who are preparing to teach, and to those in the Classical Department who, without having the time to devote to technical details, still desire some knowledge of those broad facts and principles of science which is essential to all who would lay claim to a liberal education.

Text-book: Mill's Realm of Nature.

SHORTER COURSE IN GEOLOGY.

This has been introduced in response to a special demand from the Normal Department for a course in Geology that would be at once short and self-contained. It is in the nature of an optional study. Classes in it may be organized at the special request of not less than ten persons, who shall agree upon a suitable hour for meeting.

Text-book: LeConte's Compend, accompanied by lectures.

ECONOMIC GEOLOGY.

Second Term—Required of all Seniors in the Chemical, Civil Engineering, and Agricultural Departments.

As the name indicates, it is the practical, or inorganic rather than the organic side of Geology that is here made prominent. Historical Geology is studied briefly and in outline. Fossils are considered important in so far as they serve to determine rocks, whereas in General or Biological Geology the reverse may be considered true. Structural Geology becomes relatively important, and Mineralogy and Lithology occupy a leading place. Some of the topics of economic importance treated are: Common Rocks and Vein-forming Minerals; Origin of Ore Deposits; Mining Terms and Methods; Coal; Petroleum; Natural Gas, and Asphaltums; Building Stone, Clay, and Cement; Geological Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Engineering.

Text-book: Tarr's Economic Geology, supplemented by lectures.

In addition to the above, a course of about five lectures on the Relation of Geology to Agriculture will be given in connection with the new Short Course in Agriculture, instituted by recent action of the Board of Trustees.

(B) ZOÖLOGY.

Under this title are comprehended the following branches: 1. Systematic Zoölogy, 2. Laboratory Zoölogy, 3. Osteology, 4. Embryology, 5. Economic Entomology.

SYSTEMATIC ZOÖLOGY.

First Term—Required of Juniors in the Scientific and Bachelor of Pedagogy, and of Sophomores in the Biological and Agricultural courses.

A general presentation of the subject is here attempted. The general principles governing Taxonomy are laid down and the different sub-kingdoms taken up and studied in detail. The practical work is limited to that which can be satisfactorily accomplished in daily exercises of one hour each. Much of it consists of demonstrations by the instructor of the chief external features of the animal as well as of such internal features as can be presented in this brief space of time. Accompanying this instruction, which is given chiefly by lectures and demonstrations, the student is expected to gain facility in the determination of species through the use of natural and artificial "keys," as, for instance: Jordan's Manual of the Vertebrates of the United States, and Miss Warner's Butterflies of Kentucky. A copy of each of these is loaned to the student as a part of the laboratory equipment. In this way, the powers of scientific observation and discrimination are trained. Finally a text-book: Arthur Thompson's Animal Life, is used to present to the class in a form suitable for discussion such interesting topics of Biology as Interrelation of Plants and Animals, the Struggle for Existence, Coloration of Animals, Social Life of Animals, Protoplasm, Origin of Life, Physiological Division of Labor, Animal Psychology, Principles of Embryology, the Past History of Animals, the Doctrine of Evolution, Heredity, Animal Life and Ours.

LABORATORY ZOÖLOGY.

Second Term—Required of the same students as have completed the Systematic Zoölogy of the first term, with the exception of the matriculates in the Chemical Course. They take only the first term's work. The nature and scope of the work here is best described under the term "Animal Morphology." In the exercise of one hour and a half devoted to this subject five times a week, both the macroscopic and microscopic anatomy of animals is studied by the most approved modern methods and appliances. To each student is assigned a table with the use of a full line of apparatus and re-agents, for which no charge is made, with the exception of that for a set of dissecting instruments and for breakage. The object of this course is the acquisition by the student, first, of a thorough knowledge of the comparative anatomy of leading types; secondly, of skill in anatomical dissection and microscopical manipulation. Knowledge of this kind, obtained as it is by the direct examination of living and dead tissue, as well as by the actual hardening, staining, sectioning, and mounting of the latter for microscopical investigation, will be found especially valuable to persons who intend to study medicine.

The instruction is given chiefly by means of lectures and printed or dictated directions for the practical work.

OSTEOLOGY.

First Term—Required of Juniors in the Biological and Agricultural courses. Five hours a week are given to the comparative study of the Vertebrate skeleton—chiefly that of the Mammalia. For this purpose a selected collection of Ward type skeletons are used.

Text-book: Flower's Osteology of the Mammalia.

EMBRYOLOGY.

Second Term—Required of Juniors in the Biological course. Three afternoons a week are assigned for this study. Instruction consists of lectures upon the general facts and principles of Embryology, accompanied by practical work on the embryonic development of such vertebrates as the frog and chick.

Text-book: Balfour's Elements of Embryology.

ECONOMIC ENTOMOLOGY.

First Term—This study is laid down for Seniors in the Biological and Agricultural courses.

The Entomological work is made a separate feature because of its economic importance. It is estimated by our best entomologists and statisticians that we lose annually in this country from the depredations of injurious insects not less than $100,000,000. If this be so, it is highly important that a knowledge of insects and their habits should be disseminated among the people, and is especially important in Kentucky, where the leading industry is agriculture. It has been urged that a reduction of a crop to the extent of one fourth or one half of its value by insects should be regarded as a tax of twenty-five or fifty per cent. on its full value. Such a tax is collected year after year, often without any attempt at resistance. It is the purpose of the Entomological work at the College to place in the hands of the students who expect to make farming their occupation such means of defense against loss as are known to those who have given the matter study. The Department is especially well provided for in this direction, having the benefit of the work done at the Experimental Station, and having access to the collections, apparatus and library, accumulated for Station work. The collection now contains examples of most of the injurious insects which are found in the United States, and is constantly being enlarged. The Station is well supplied with breeding cages for use in studying the habits and life histories of insects, so that students who wish to do so have an opportunity to observe for themselves the various stages presented by a developing insect, and may see it in many cases actually engaged in its destructive work. An Insectary recently added to our facilities gives us increased opportunity in the field of investigation.

By special arrangement the instruction in this branch is under the charge of the Entomologist of the Station, Professor Garman.

XV. DEPARTMENT OF PHYSICS.

PROFESSOR PENCE.

The Department of Physics occupies two adjacent rooms on the East side, and in the basement, of the main College building. The lecture room is 18 feet by 44 feet, and will comfortably seat

fifty or more students. It has the necessary lecture table, with gas, water, and drainage, and is arranged to be used at pleasure as a dark room. The Laboratory is 24 feet by 30 feet. It is well furnished with cases for apparatus, tables, water, instruments for use in experimentation, and has twenty-four spaces at the tables for individual work, each with gas and drawers. This Department is well equipped with apparatus, nearly all of which is new. The rooms are the best fitted and furnished in the building.

The following shows briefly, but accurately, the work in Physics:

PREPARATORY.

Second Term—Recitations, with experiments, one hour daily.

Text-book: Gage's Introduction to Physical Science.

SOPHOMORE YEAR.

First Term—Lectures, illustrated by experiments, with recitations, one hour daily. This course embraces the subjects of the General Properties of Matter, Dynamics, Sound, Heat, Light, Electricity, and Magnetism, and is intended to give the student a general knowledge of physical phenomena and of physical laws, and to prepare him for the practical work which accompanies and follows the course.

Text-book: Gage's Principles of Physics.

For Engineering students, Physical Laboratory one hour daily. Experiments in the subject of Lecture Course.

Text-book: Gage's Laboratory Manual and Note-book.

Second Term—Physical Laboratory, one and one half hours daily. Experiments in the subject of the Lecture Course. The students in Engineering do not take this term's work.

Text-book: Gage's Laboratory and Note-book.

JUNIOR YEAR.

First Term—Physical Laboratory, one hour daily. Lectures, Recitations, and Experiments in Heat.

Text-book: Wright's Heat.

Second Term—Physical Laboratory, one hour daily. Lectures, Recitations, and Experiments in Electricity and Magnetism.

Text-book: Sylvanus P. Thompson's Electricity and Magnetism.

Much importance is attached to the work in the Laboratory. Each student is furnished with the necessary apparatus, and must keep a systematic record of all his work, giving data and results of each experiment. The work is both qualitative and quantitative.

DEGREES.

The State College confers the degrees of—

Bachelor of Science (B. S.),
Bachelor of Arts (A. B.),
Bachelor of Agriculture (B. Agr.),
Bachelor of Civil Engineering (B. C. E.),
Bachelor of Mechanical Engineering (B. M. E.),
Bachelor of Pedagogy (B. Ped.),
Master of Science (M. S.),
Master of Arts (A. M.),
Master of Agriculture (M. Agr.),
Master of Civil Engineering (C. E.),
Master of Mechanical Engineering (M. E.).

To attain the Bachelor's degree, the applicant must have been a student of the College at least one session, and he must have passed the examination on all the courses of study leading to the desired degree.

To attain the Master's degree the applicant must have attained the Bachelor's; he must have pursued, for at least one session in this College or two sessions elsewhere, a major study selected by himself and one or two minor studies assigned him by the Faculty; and finally he must, at least thirty days before the end of the session, have satisfied the Faculty that he is duly proficient in his studies, and have presented to the College an acceptable thesis on his major study or on some part thereof.

If the applicant be an alumnus of another institution of learning, he must satisfy the Faculty that he has completed a course of study for his first degree equivalent to that prescribed in this College for the same degree; and he must matriculate and study under the direction of the Faculty at least one session.

Students that complete a part of the courses in a satisfactory manner may, in attestation of the fact, receive Certificates of Proficiency.

GROUPING OF COURSES FOR DEGREES.

1. COURSES FOR THE DEGREE OF B. S.,

MAJOR STUDY, MATHEMATICS.

History, Political Economy, and Metaphysics, . President Patterson.
Botany, ... Professor Matthews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White, Dean.
The French and German Languages, ... Professor Wernicke.
Anatomy and Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Physics, ... Professor Pence.
Drawing, ... Ass't Professor Wells.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minor studies will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English History, Political Economy, Metaphysics, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Maj. Math.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Plane Geom.	Drawing.	Physiology.	Drill.	
	English.	Plane Trigonom.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geom.	German.	Physics.		Drill.	Botany. (Laboratory.)
	Analytic Geom.	German.	Botany.	Chemistry.	Drill.	Physics. (Laboratory.)
Junior Year.	Zoölogy.	English.	French.	German.		Chemistry. (Laboratory.)
	Geology. (Palæontology and Mineralogy).	English.	French.	German.		Zoölogy. (Laboratory.)
Senior Year.		History.	Mental Philosophy.			Geology. (General.)
		History. Polit. Economy.	Logic.	Astronomy.		

II. COURSES FOR THE DEGREE OF B. S.,

MAJOR STUDY, CHEMISTRY.

History, Political Economy, and Metaphysics, . . President Patterson.
Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics, ... Professor White, Dean.
The French and German Languages, ... Professor Wernicke.
Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Physics, ... Professor Pence.

For the degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minors will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Maj. Chem.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:30 to 4 P. M.
Freshman Year.	English.	Geometry.	French.	Physiology.	Military Science.	
	English.	Trigonometry.	Algebra.	Physiology.	Military Science.	
Sophomore Year.	Solid Geometry.	German.	Physics.		Military Science.	Botany. (Laboratory.)
	Analytical Geometry.	German.	Botany.	Chemistry.	Military Science.	Physics. (Laboratory.)
Junior Year.	Zoölogy.	English.	Calculus.	German.		Chemistry. (Laboratory.)
	Theoretical Chemistry.	English.	French.	German.		Chemistry. (Laboratory.)
Senior Year.		History.	Mental Philosophy.	General Chemical Reading.		Chemistry. (Laboratory.)
		Political Economy.	Logic.	Economic Geology.		Chemistry. (Thesis.)

III. COURSES FOR THE DEGREE OF B. S.,

MAJOR STUDY, BIOLOGY.

History, Political Economy, and Metaphysics, . President Patterson.
Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics, ... Professor White, Dean.
The French and German Languages, ... Professor Wernicke.
Entomology, ... Professor Garman.
Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Physics, ... Professor Pence.
Drawing, ... Ass't Professor Wells.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minors will be assignsd from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Maj. Biol.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Geometry.	Drawing.	Physiology.	Drill.	
	English.	Trigometry.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Zoölogy.	German.	Physics.		Drill.	Botany.
		German.	Botany.	Chemistry.	Drill.	Zoölogy.
Junior Year.	Plant Histology.	Osteology.	French.	German.		Cryptogamic Botany.
	Geology, (Paleontology and Mineralogy.)		French.	German.		Embryology. Plant Physiology.
Senior Year.	Entomology.	History.	Mental Philosophy.			General Geology.
	Botany (Special Work.)	Politicai Economy.	Logic.	Astronomy.		Thesis.

IV. COURSES FOR THE DEGREE OF A. B.,

MAJOR STUDIES, GREEK AND LATIN.

History, Political Economy, and Metaphysics, . . President Patterson.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
The French and German Languages, ... Professor Wernicke.
The Greek and Latin Languages, ... Professor Neville, Dean.
Asst. Prof. Blanton.
Physiology, ... Professor Pryor.
Physiography, ... Professor Miller.

For the degree of A. M., either Greek, Latin, English, History, Mental Science, French or German, may be selected as major study; and minors will be assigned from Greek, Latin, English, Mathematics, History, Mental Science, Political Economy, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF A. B.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Greek or German.	Physiology.	Latin.	Drill.	
	English.	Greek or German.	Algebra.	Latin.	Drill.	
Sophomore Year.	Latin.	Plane Geometry.	Greek.		Drill.	
	Latin.	Plane Trigonometry.	Greek.	Chemistry.	Drill.	
Junior Year.	Solid Geometry.	English.	French.	Greek or German.		
	Analytical Geometry.	English.	French.	Greek or German.		
Senior Year.	French.	History.	Mental Philosophy.	Physiography.		
	French.	Political Economy.	Logic.	Astronomy.		

V. COURSES FOR THE DEGREE OF B. PED.,

MAJOR STUDY, PEDAGOGY.

History, Political Economy, and Metaphysics,	President Patterson.
Botany and Horticulture,	Professor Mathews.
The English Language and Literature,	Professor Shackleford.
Military Science,	Captain Swigert.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White.
The Greek and Latin Languages,	Professor Neville.
Pedagogy,	Professor Roark, Dean.
	Asst. Prof. Newman.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Physics,	Professor Pence.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. PED.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English Literature.	Plane Geometry.	Drawing.	Physiology.	Drill.	
	English Literature.	Plane Trigonometry.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geometry.	Virgil.	Physics.		Drill.	Botany. (Laboratory.)
	Analytical Geometry.	Cicero.	Botany.	Chemistry.	Drill.	Physics. (Laboratory.)
Junior Year.	Zoölogy.		Horace.			Chemistry. (Laboratory.)
	Geology, (Palæontology, Mineralogy.)	Advanced Latin.	Educational Psychology.			Zoölogy. (Laboratory.)
Senior Year.		History.	Mental Philosophy.	School Economy Methods.		Geology. (General.)
	School Economy, History of Education.	History, Political Economy	Logic, Astronomy, Moral Philosophy.	Astronomy.		

SCHEDULE OF STUDIES FOR THE STATE DIPLOMA.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	At Other Hours.
One Year.	Latin.	Plane Geometry.	Psychology.	Physics.	Drill.	Forensics.
	English Literature.	Advanced Arithmetic.	Advanced Algebra.	Latin.	Drill.	Forensics, Pedagogy.

SCHEDULE OF STUDIES FOR THE COUNTY CERTIFICATE.

Five Months.	Arithmetic or Grammar.	Geography or Composition.	Civics or Orthography.	U. S. History.	Drill.	Forensics.
Ten Weeks.	Arithmetic or Composition.	Higher Arithmetic or Grammar.	Geography or Physiology.	Civics.	Drill.	Forensics.
	Ky. History or Grammar.	Higher Arithmetic or Composition.	Geography or Physiology.	U. S. History.	Drill.	Forensics, Pedagogy.

SCHEDULE OF STUDIES FOR THE STATE CERTIFICATE.

Second Five Months.	English Literature.	Higher Arithmetic.	Psychology.	Algebra.	Drill.	Forensics, Pedagogy.

VI. COURSES FOR THE DEGREE OF B. C. E.,

MAJOR STUDY, CIVIL ENGINEERING.

History and Political Economy, ... President Patterson.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
Civil Engineering, ... Professor Nelson, Dean.
Mechanical Engineering, ... Professor Anderson.
Geology, ... Professor Miller.
Physics, ... Professor Pence.
Descriptive Geometry, ... Asst. Prof. Wells.

For the degree of C. E., either Railways, Structures, Regimen of Streams, Canals and Water Power, Municipal or Mining Engineering, Sanitation, Topographical, Geodetic and Hydrographical Surveys, or Architectural Engineering may be selected as major study; and minors will be assigned from Mathematics, Astronomy, Mechanical Engineering, Geology, Chemistry, Physics, Political Economy, English, French, and German.

SCHEDULE OF STUDIES FOR THE DECREE OF B. C. E.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Plane Geometry.	Draughting.	Draughting.	Drill.	Fieldwork Draughting.
	English.	Plane Trigonometry.	Plane Surveying.	Topographical Drawing.	Drill.	Fieldwork Draughting.
Sophomore Year.	Solid Geometry, Algebra.	Railway Location.	Physics.	Physical Laboratory.	Drill.	Fieldwork Draughting.
	Analytical Geometry.	Descriptive Geometry.	Structural Designs.	Chemistry.	Drill.	Fieldwork Draughting.
Junior Year.	Railways, Other Highways.	Graphical Statics.	Calculus.	Advanced Surveying, Spher. Trigonom.		Structural Draughting.
	Electricity, Magnetism.	Strength of Materials.	Theory of Structures.	Analytical Mechanics.		Architectural Draughting.
Senior Year.	Bridges and Structures.	History.	Hydraulic Engineering, Architecture.	Sanitary Engineering, Architecture.		Designing Structures.
	Stereotomy, Mining.	Political Economy.	Goedesy, Least Squares.	Economic Geology.		Thesis.

VII. COURSES FOR THE DEGREE OF B. M. E.,

MAJOR STUDY, MECHANICAL ENGINEERING.

History and Political Economy,	President Patterson.
The English Language and Literature,	Professor Shackleford.
Military Science,	Captain Swigert.
Chemistry,	Professor Kastle.
Mathematics,	Professor White.
Mechanical Engineering,	Professor Anderson, Dean. Asst. Prof. Wells.
Physics,	Professor Pence.
Shopwork and Drawing,	Instructor Johnson.

For the degree of M. E., either Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, or Machine Designing may be selected as major study; and minor studies will be assigned from Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, Machine Designing, Mechanical Laboratory Work, Mathematics, Physics, Chemistry, Mental Science, Political Science, English and Modern Languages.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. M. E.

		First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:45—5 P. M.
Freshman Year.	1st Term.	English.	Plane Geometry.	Mechanical Drawing.	Wood Working Tools, Mechan'l Drawing.	Military Science.	Shop Work in Wood, Bench and Lathe.
	2d Term.	English.	Plane Trigonometry.	Mechanical Drawing.	Theory of Pattern Making and Foundry Practice.	Military Science.	Pattern Making Foundry.
Sophomore Year.	1st Term.	Soiid Geom'try, Algebra.	Mechanical Drawing.	Physics.	Physical Laboratory.	Military Science.	Iron and Steel Forging.
	2d Term.	Analytical Geometry.	Descriptive Geometry.	Elementary Designing.	Chemistry.	Military Science.	Vise Work in Metal, Machine Work.
Junior Year.	1st Term.	Heat.	Kinematics.	Calculus.	Machine Design.	Machine Design.	Chemical Laboratory. Machin. Design
	2d Term.	Magnetism and Electricity.	Strength of Materials.	Metallurgy.	Analytical Mechanics.	Machine Design.	Advanced Work in Physic'l Lab., Machin. Design
Senior Year.	1st Term.	Thermodynamics.	History.	Steam Boilers, Transmission of Power.	Valve Gearing.	Theory and Practice of Photography.	Valve and Engine Designing.
	2d Term.	Engine Design.	History and Political Economy.	Dynamometers and Measurement of Power. Dynamo Electric Machinery.	Experimental Work; Engine, Boiler, Belt and Materials of Construction Tests.	Experimental Work; Engine, Boiler, Belt and Materials of Construction Tests.	Thesis Work.

VIII. COURSES FOR THE DEGREE OF B. AGR.,

MAJOR STUDIES, BOTANY, HORTICULTURE AND AGRICULTURE.

History, Political Economy, and Metaphysics, . . President Patterson.
Agriculture, Horticulture, and Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
The French and German Languages, ... Professor Wernicke.
Entomology, ... Professor Garman.
Anatomy and Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Mechanical Engineering, ... Professor Anderson.
Physics, ... Professor Pence.
Drawing, ... Asst. Prof. Wells.

For the degree of M. Agr., either Agricultural Chemistry, Horticulture, Entomology, Economic Botany or Veterinary Science, may be selected as major study; and minors will be assigned from Agricultural Chemistry, Horticulture, Entomology, Zoölogy, Geology, Botany, and Veterinary Science.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. AGR.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Geometry.	Drawing.	Physiology.	Drill.	
	English.	Trigonometry.	Algebra.	Physiology.	Drill.	Woodwork, Forging.
Sophomore Year.	Zoölogy.	German.	Physics.		Drill.	Botany. (Laboratory.)
		German.	Botany.	Chemistry.	Drill.	Zoölogy. (Laboratory.)
Junior Year.	Plant Histology.	Osteology.	French.	German.		Chemistry. (Laboratory).
	Agricultural Chemistry.	Soils, Draining, Fertilizers.	French.	German.		Plant Physiology, Horticulture.
Senior Year.	Entomology.	Stock Breeding, Feeding, Dairying.		Horticulture.		Economic Botany.
		Political Economy.		Economic Geology.		Thesis.

THE ACADEMY.

FACULTY.

PRINCIPAL:

WALTER KENNEDY PATTERSON.

ASSISTANTS:

JOHN LEWIS LOGAN, A. B.

JOSEPH MORTON DAVIS, A. B., B. S.

VICTOR EMANUEL MUNCY, B. S.

The Academy is under the immediate direction and management of a Principal and three Assistants, all of whom are experienced professional teachers.

The pupils are subject to the same rules and regulations as the students of the College. Their attendance at the College is required only during the hours of recitation and other prescribed College exercises, such as chapel, drill, etc., the preparation of their lessons being made elsewhere.

The courses of instruction in the Academy are provided for those who enter directly from the common schools, and are intended to supply the necessary training intermediate between the course of study prescribed by the State Board of Education for the common schools and the Freshman Class of the College.

Applicants for admission to the Academy, if county appointees, must be at least fourteen years of age, and must be provided with credentials of scholarship from the County Superintendent. They must also pass a satisfactory examination in spelling, reading, writing, arithmetic, history of the United States, English grammar and geography, in order to be admitted.

Other applicants must be at least fifteen years of age, and must have completed the common school course prescribed by the State Board of Education. They must pass a satisfactory examination in spelling, reading, writing, arithmetic to percentage, English grammar through syntax, and geography, in order to be admitted. Applicants from the city will be required to pass an examination on all the subjects embraced in the first year's Scientific Course in the Academy. Those who enter at any other time than the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes which they propose to enter.

Students matriculating in the Academy will be required to pursue one of its prescribed courses of study, and will not be permitted to take any work outside of this course, except on the recommendation of the Principal.

ENTRANCE EXAMINATION.

For the benefit of those, other than county appointees, who desire to know the character of the examination which applicants for admission will be required to pass, the following examina-

tion papers are submitted as a sample. It is not to be understood that these are the questions on which the pupils will be examined, but that they indicate the attainments necessary to enter the Academy of the College. Those who expect to enter more advanced classes will be required to pass an examination on all that the class which they propose to enter has passed over.

I. ARITHMETIC.

Find the greatest common divisor and the least common multiple of 899 and 961.

Simplify $2\frac{1}{4} \times \frac{10\frac{3}{4} - 4\frac{11}{12}}{6\frac{3}{16} \times 7\frac{2}{3}} \div \frac{3\frac{5}{11}}{1\frac{2}{5} + 9\frac{1}{11}}$

Find the number of bushels that will fill a bin 8.5 feet long, 4.5 feet wide, 3.5 feet deep.

The longitude of Rome is 12° 27′ 14″ east; the longitude of Chicago is 87° 35′ west; find the difference in time between the two places.

What will be the cost of plastering the walls and ceiling of a room 24 feet 4 inches long, 20 feet wide, and 12 feet 6 inches high, at 27 cents per square yard, if 20 square yards be deducted for doors, windows and base-board?

If a train at the rate of $\frac{5}{13}$ of a mile per minute takes $3\frac{1}{4}$ hours to reach a station, how long will it take at the rate of $\frac{7}{15}$ of a mile per minute?

A and B can do a piece of work in $2\frac{1}{2}$ days, A and C in $3\frac{1}{3}$ days, B and C in $4\frac{1}{4}$. Required the time in which all these working together can do the work, and in which each can do the work alone.

A farmer sowed 5 bushels, 1 peck, 1 quart of seed, and harvested from it 103 bushels, 3 pecks, 5 quarts. How much did he raise from a bushel of seed?

Reduce 9 square chains, 11.25 square rods, to the decimal of an acre.

If a bar of iron $3\frac{1}{3}$ feet long, 3 inches wide, $2\frac{3}{4}$ inches thick weighs 93 pounds, what will be the weight of a bar $3\frac{2}{3}$ feet long, 4 inches wide, and $2\frac{1}{2}$ inches thick?

II. ENGLISH GRAMMAR.

Name, define, and give examples of all parts of speech.

Define a phrase, a clause, and give examples of each.

What are the only verbs that can be in the passive voice? Why?

Write a complex sentence containing a noun clause; one containing an adjective clause; one containing an adverbial clause.

Analyze the following sentence and parse in full all the words in it:

"The soldiers of the tenth legion, wearied by their long march, and exhausted from want of food, were unable to resist the onset of the enemy."

III. GEOGRAPHY.

What are the circles of the earth?

What are the meridians?

Define latitude and longitude.

What two meridians bound the hemispheres?

Define the two principal forms of government.

Bound North America and describe its political divisions.

Why is the climate of Western Europe different from that of America in the same latitudes?

Describe the mountains, principal rivers, and lakes of Asia.

Describe the natural routes of commerce.

IV. HISTORY.

What section of the United States was first explored by the Spanish? the French? the English?

Give a concise description of the settlement of Plymouth, Jamestown, New York City, and the distinctive characteristic of each.

Define Charter, Proprietary, and Royal government as applied to the colonies, and name the colonies that were under each of these forms of government.

Name three of the principal causes that led to the Revolutionary War.

What was the main cause of the War of 1812?

What caused the Mexican War?

Give the leading political differences between the North and the South at the opening of the Civil War.

Name the three departments of the government under the Constitution, and define the duties of each.

Courses of Study.

I. SCIENTIFIC, AGRICULTURAL, AND ENGINEERING COURSE.

First Year—Arithmetic through percentage, Robinson's Higher; Algebra, Wentworth's Higher to Chapter XI.; Political and Descriptive Geography, Butler's Complete; History of the United States, Eggleston; English Grammar, Patterson's Advanced.

Second Year—Arithmetic Completed, Robinson's Higher; Algebra, Wentworth's Higher to Chapter XXII.; Elementary Physics, Gage; Physical Geography, Maury; General History, Anderson; Rhetoric, Williams; Synonyms, Graham.

II. CLASSICAL AND NORMAL COURSE.

First Year—Latin Grammar, McCabe's Bingham; Scudder's Gradatim; White's Beginner's Greek Book; Arithmetic through percentage, Robinson's Higher; Algebra, Wentworth's Higher to Chapter XI.; Political and Descriptive Geography, Butler's Complete; English Grammar, Patterson's Advanced.

Second Year—Latin Grammar continued; Cæsar, Kelsey; Virgil and Latin Exercises; Greek Grammar continued; Xenophon's Anabasis, Kelsey; Homer's Iliad; Arithmetic completed, Robinson's Higher; Algebra, Wentworth's Higher to Chapter XXII.; Elementary Physics, Gage; Rhetoric, Williams; Synonyms, Graham.

SCHEDULE OF STUDIES IN THE ACADEMY.

SCIENTIFIC, AGRICULTURAL, AND ENGINEERING.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.
First Year.	English Grammar.	Geography.	Arithmetic.	Algebra.	Drill.
	English Grammar.	History.	Arithmetic.	Algebra.	Drill.
Second Year.	Rhetoric.	Algebra.	Physical Geography.	Arithmetic.	Drill.
	Rhetoric Synonyms.	Algebra.	History.	Physics.	Drill.

CLASSICAL AND NORMAL.

First Year.	English Grammar.	Latin Grammar.	Arithmetic.	Algebra.	Drill.
	English Grammar.	Latin Grammar.	Arithmetic.	Algebra.	Drill.
Second Year.	†Greek Grammar, Rhetoric.	Algebra.	Cæsar.	Physics.	Drill.
	†Greek Grammar, Rhetoric, Synonyms.	Algebra.	Virgil.	Arithmetic.	Drill.

† For classical students only.

STUDENT ORGANIZATIONS.

LITERARY SOCIETIES.

There are four literary societies in connection with the College in healthy and vigorous activity. The first of these in order of time is the Union Literary, formed in 1872, by the consolidation of the Yost Club and the Ashland Institute. It operates under a charter from the Legislature, occupies a commodious hall in the third story of the College building, handsomely carpeted and seated. It owns a good library, toward the formation of which the Legislature contributed one hundred dollars in 1873.

The Patterson Literary Society, formed in 1887, was, at the suggestion of Governor Knott, named in honor of the President of the College. It, also, is provided with a commodious room, handsomely fitted up and furnished with a good library.

On the evening of the 22d of February of each year an oratorical contest is held, under the auspices of the Union Literary Society, to the successful competitor in which a gold medal, provided by the Alumni of the society, is awarded.

A similar contest takes place March 26th of each year, in which the contestants are members of the Patterson Literary Society. The first prize in this contest is President Patterson's gold medal, the second a gold medal given by George W. Crum, Esq., of Louisville, Ky. President Patterson will by bequest provide in perpetuity for a medal to be awarded on the 26th of March of each year. The charter of the society was granted in 1888.

The Philosophian Society was formed by the young ladies of the College in 1882. It is likewise provided with a handsome hall, well equipped. This society provides a public entertainment, consisting of declamations, essays, and orations, once a year. The Philosophian Society has hitherto made no provision for a public award on the basis of competition.

MECHANICAL ENGINEERING SOCIETY.

The Mechanical Engineering Society is a student organization, and any matriculate in either of the Engineering courses is eligible to membership.

The society meets on the third Friday of every month, and the exercises consist of a paper on some Engineering subject, followed by a general discussion of the paper and a discussion of current Engineering topics.

During each year a number of non-resident engineers favor the society with lectures.

The officers of the society this year are D. M. Case, President; B. W. Duck, Secretary.

THE BIOLOGICAL SOCIETY.

This society was the first scientific society organized in the institution. For a time its membership consisted chiefly of members of the Faculty and the Experiment Station Staff. Recently it has been reorganized and placed under student management, still retaining, however, the larger part of its old membership.

The objects of the society are the cultivation of an interest in the subject of Natural History, and the stimulation of a spirit of original research in the members. The meetings are monthly. The exercises consist of the reading of papers, followed by discussions.

The officers for the present year are J. T. Geary, President; Bessie Cassidy, Vice-President; Martha R. White, Secretary.

ATHLETICS.

Opportunity for physical exercise is afforded by the Athletic Field and Parade Grounds. The improvements placed upon these grounds have converted them into a good College Athletic Field, offering excellent facilities for the practice of legitimate out-door sport.

The student management of athletics is vested in an "Athletic Association," a consolidated organization formed by the union of three sub-associations, known respectively as the Foot-ball, Base-ball and Track-athletic Associations. The officers of these three sub-organizations constitute the managing Board of the Athletic Association. The Faculty control of Athletics is secured through its Committee on Athletics acting in accordance with a special set of regulations adopted by the Board of Trustees and also by the Faculty itself.

ALUMNI.

1869.

MUNSON, WILLIAM BENJAMIN, B. S., ... Denison, Texas.

1870.

MUNSON, THOMAS VOLNEY, B. S., ... Denison, Texas.

1871.

HARDING, ENOCH, B. S., ... Ft. Worth, Texas.

1874.

CARSWELL, ROBERT EMMETT, B. S., ... Decatur, Texas.
DEAN, JOHN ALLEN, B. S,, ... Owensboro.
HARDIN, THOMAS ROLLINS, B. S., ... Fort Jesup, La.
SMITH, EDWARD EVERETT, B. S., ... Atlanta, Ga.

1875.

BROWN, EDGAR THOMAS, B. S., ... Wichita, Kansas.

1877.

FLOETE, FRANKLIN, B. S., ... Spencer, Iowa.
WARD, BALLARD PRESTON, B. S., ... Speedwell, Va.

1878.

COLE, MOSES SALVADOR, B. S., ... Rivas, Nicaragua.
*MACKIE, MAHLON, B. S., ...

1879.

BLAKELY, CHARLES GRAHAM, B. S., ... Topeka, Kansas.
HAYS, NAPOLEON BONAPARTE, B. S., ... Pineville.
PERRY, CALEB SYKES, B. S., ... Winfield, Kansas.
WRIGHT, HENRY MOSES, B. S., ... Rome, Georgia.

1880.

CRAWFORD, JAMES, B. S., ... Lexie, Tennessee.
PETER, ALFRED MEREDITH, B. S., ... Lexington.
WELLER, NICHOLAS JOHN, B. S., ... Pineville.
WHATLEY, GEORGE CROGHAN, B. S., ... Birmingham, Ala.

1881.

PENCE, MERRY LEWIS, B. S., ... Lexington.

1882.

BERRY, GEORGE G., B. S., ... Lexington.
DE ROODE, LOUIS KUINDERS, A. B., ... Louisville.
PATTERSON, JOHN LETCHER, A. B., ... Louisville.
RODGERS, EDWARD LEE, A. B., ... Cincinnati, Ohio.
SHACKLEFORD, JOHN ARMSTRONG, A. B., ... Tacoma, Washington.
STOLL, JOHN WILLIAM, A. B., ... Lexington.

1883.

*King, William Elijah, B S., ...
Taylor, James W., A. B., ... St. Louis, Mo.

1884.

Eubanks, Burton Pendergast, B. S., ... Ft. Worth, Texas.
Graves, Clarence Scott, B. S., ... Lexington.
*Jones, Henry Clay, B. S., ... Lexington.
Kastle, Joseph Hoeing, B. S., ... Lexington.
Ramsey, Russell Thomas, B. S., ... London.
Riley, Otis Violette, B. S., ... Pineville.

1885.

De Roode, Rudolph John Julius, B. S., ... New York, N. Y.
Gess, George Thomas, B. S. . . . . Lexington.
Gordon, J. Crittenden, B. S., ... Pleasureville.
Lambuth, William David, A. B., ... Seattle, Washington.
Scott, James Russell, B. S. . . . . Lexington.
Thornbury, William Garland, B. S., ... New York, N. Y.

1886.

Morgan, Thomas Hunt, B. S., ... Bryn Mawr, Pa.
Prewitt, Robert Lee, A. B., ... Walnut Hill.
Prewitt, William C., A. B., ... Ft. Worth, Texas.

1887.

Hifner, Kearney Lee, B. S., ... South Elkhorn.
Shackleford, Thomas Wheatley, A. B., ... Superior, Wis.

1888.

Bartlett, Frederick Vincent, B. S., ... Lexington.
Bryan, George Gist, B. S., ... Lexington.
Curtis, Henry Ernest, B. S., ... Lexington.
Gunn, Belle Clement, B. S., ... Springfield, Ohio.
Payne, Robert Treat, B. S., ... Athens.

1889.

Ellershaw, Edward, A. B., ... Digby, Nova Scotia.
Frazer, Hugh Miller, B. S., ... Lexington.
*Patterson, William Andrew, B. S., ... Lexington.
Prewitt, Annie Gist, B. S., ... Walnut Hill.
Walker, Robert Bernie, B. S., ... Lexington.

1890.

Anderson, Richard Thomas, Jr., B. S., ... Lexington.
Baker, Annie Jane, B. S., ... Lexington.
Brock, Charles Robert, B. S., ... London.
Forston, Keene Richard, B. S., ...
Gunn, John Wesley, C. E., ... Lexington.
Hoeing, Charles, A. B., ... Lexington.
Wilson, Margaret Agnes, B. S., ... Chicago, Ill.
Yates, James Anderson, B. S., ... Williamsburg.

1891.

BERRY, HENRY SKILLMAN, B. S., ... Lexington.
CLARDY, U. L., B. S., ... Newstead.
MUNCY, VICTOR EMANUEL, B. S., ... Lexington.
WALLIS, WILLIAM RUSSELL, C. E., ... Lexington.
WARNER, B. CALLIE, B. S., ... Lexington.

1892.

COX, ARTHUR MELVILLE, A. B., ... Cynthiana.
ELKIN, FIELDING CLAY, B. S., ... Lexington.
HUNT, IRENE LEONORA, B. S., ... Lexington.
MAXEY, JOHN GEE, A. B., ... Tompkinsville.
PAGE, WILLIAM SEABURY, C. E., ... McMillin, Wash.
POTTINGER, SAMUEL LANCASTER, A. B., ... Louisville.
*REYNOLDS, FRANK CRAIG, C. E., ...
SCOVELL, FRANK ELMER, C. E., ... Rosehill, Ill.
SHAW, HIRAM, JR., B. S., ... Lexington.
SHELBY, ISAAC PRATHER, C. E., ... Lexington.
SOUTHGATE, BUTLER TURPIN, A. B., ... Lexington.

1893.

ADAMS, KATHERINE INNES, A. B., ... Lexington.
BRYAN, JOHN IRWIN, B. S.; B. M. E., '95, ... San Francisco, Cal.
COURTNEY, EDMUND, B. Ped., ... Louisville.
GUNN, HENRY MARTIN, B. S., ... Lexington.
HABDY, WILLIAM COTT, B. S., ... New York, N. Y.
JOHNSON, JAMES RICHARD, B. M. E., ... Lexington.
MCFARLIN, JOHN WILLIAM, B. S., ... Winchester.
RAILEY, NORTON SANDERS, C. E., ... Washington, D. C.
ROBERTS, DANIEL STILLWELL, B. Ped., ... Lexington.
SMITH, DENNY PERRYMAN, B. S., ... Cadiz.
SPEYER, ROSA, B. S., ... Lexington.
WARE, CORA E., B. Ped., ... Pineville, La.
WHITE, MILFORD, C. E., ... Williamsburg.
WILLIS, BENJAMIN GRANT, B. S., ... Lexington.

1894.

AULICK, EDWIN CHESTERFIELD, A. B., ... Hightower.
BRADSHAW, GEORGE DICKIE, B. Ped., ... Winchester.
BRAND, EDWARD, A. B., ... Muir.
CURTIS, CARLTON COLEMAN, B. S., ... Lexington.
FAIG, JOHN THEODORE, B. M. E., ... Cincinnati, Ohio.
GARRED, ULYSSES ANDERSON, B. M. E., ... Lexington.
GRIFFING, EMMA ROSETTA, B. S., ... Lexington.
HAYS, JAMES MORRISON, A. B., ... Barbourville.
HUGHES, LEONARD SAMUEL, B. S., ... Frankfort.
JONES, MATTISON BOYD, A. B., ... Tuttle.

KEISER, BENJAMIN CHRISTOPHER, B. S., ... Chicago, Ill.
KROESING, LILLIE, B. S., ... Lexington.
NEWTON, NATHAN ALEXANDER, B. M. E., ... Lexington.
NORMAN, ALBERT CLIFT, B. M. E., ... Savannah, Ga.
OOTS, NINA PEARL, B. S., ... Lexington.
SHELBY, KATHERINE, B. S., ... Lexington.
SLEDD, DORA, B. Ped., ... Lexington.
TRIGG, WILLIAM CLAY, C. E., ... Pushmataha, Miss.
WARNER, HATTIE HOCKER, B. S., ... LaFollette, Tenn.

1895.

ATKINS, MARY LYONS, B. S., ... Lexington.
BUSH, HENRY SKILLMAN, B. S., ... Lexington.
DIDLAKE, MARY LEGRAND, B. S., ... Lexington.
DOWNING, JOSEPH MILTON, B. M. E., ... Lexington.
FAULKNER, JOHN VICK, C. E., ... Hampton.
FITZHUGH, LUCY STUART, A. B., ... Lexington.
FOSTER, NETTIE BELLE, B. S., ... Lexington.
KING, ELIZABETH WHITTINGTON, A. B., ... Lexington.
LEWIS, THOMAS STONE, A. B., ... Louisville.
MCCONATHY, JAMES ASA, B. S., ... Kirklevington.
MCCAUGHLIFFE, MARY CATHERINE, B. S., ... Lexington.
MURRILL, PAUL INGOLD, B. S., ... Lexington.
NEWMAN, ROBERTA, B. S., ... Muir.
REYNOLDS, NELLIE ANNA, B. S., ... Lexington.
STOLL, RICHARD CHARLES, A. B., ... Lexington.
WEAVER, RUFUS LEE, B. S., ... Ann Arbor, Mich.
WILLMOTT, JOHN WEBB, A. B., ... Lexington.
WOODS, JOHN JOSEPH, A. B., ... Cynthiana.

1896.

ALFORD, SMITH EDISON, A. B., ... Lexington.
CARNAHAN, JAMES WILLIAM, A. B., ... Manchester.
CASE, DANIEL MORRIS, B. M. E., ... Lexington.
DAVIDSON, HARRY ADOLPH, C. E., ... Louisville.
DEAN, THOMAS ROLAND, A. B., ... Little Hickman.
DUCK, ALICE, B. S., ... Lexington.
DUNLAP, JOHN JENNINGS, A. B., ... Independence.
KERRICK, FELIX, A. B., ... Calhoun.
LYLE, JOEL IRVIN, B. M. E., ... Lexington.
MCDOWELL, EDWARD CAMPBELL, B. M. E., ... Cynthiana.
ORMAN, HENRY, B. M. E., ... Danville.
TRIGG, JOHN HENRY, B. S., ... New Columbus.
WOODS, JOHN WESLEY, A. B., ... Webbville.

MILITARY DEPARTMENT.

ROSTER.

CAPT. S. M. SWIGERT, SECOND CAVALRY, U. S. A.,
Commandant.

CADET BATTALION.

STAFF.

FIRST LIEUT. AND ADJT., T. R. DEAN.
FIRST LIEUT. AND QR. MAST., J. W. CARNAHAN.
SERGT. MAJ., G. F. BLESSING.
QR. MAST. SERGT., S. C. DEBOW.
CHIEF TRUMPETER, A. S. REESE.
CORP. SIGNAL CORPS, E. C. MCDOWELL.

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2D LT., J. C. FRAZER.
1ST SERGT., J. T. HALEY.

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L. B. BROCK.

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2D LT., W. H. SCHERFFIUS.
1ST SERGT., S. A. BULLOCK.

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F. D. BULLOCK.
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2D LT., W. H. DAVIS.
1ST SERGT., W. T. DAVIS.

SERGEANTS.

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C. REICH.
T. G. ROACH.
T. L. CAMPBELL.
H. A. DAVIDSON.

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C. J. HARRIS.
S. A. GLASS.
G. P. DILLON.
F. K. COOPER.
C. G. CORNETT.

ARTILLERY.

CAPT., J. I. LYLE.
1ST LT., G. M MORGAN.
1ST SERGT., V. H. DENNY.
SERGT., J. W. WOODS.
CORP., W. A. LASSITER.
CORP., J. S. JOHNSON.

POST-GRADUATES.

Atkins, Mary Lyons, ... Lexington.
Bradley, Ernest Brennan, ... Lexington.
Didlake, Mary LeGrand, ... Lexington.
Fitzhugh, Lucy Stuart, ... Lexington.
Murrill, Paul Ingold, ... N. Carolina.
Reynolds, Nellie Anna, ... Lexington.

UNDERGRADUATES.

SENIORS.

Alford, Smith Edison, ... Classical, ... Lexington.
Carnahan, James William, ... Classical, ... Manchester.
Case, Daniel Morris, ... Mech. Eng., . . . Lexington.
Davidson, Harry Adolph, ... Civ. Eng., ... Louisville.
Dean, Thomas Roland, ... Classical, ... Little Hickman.
Dunlap, John Jennings, ... Classical, ... Independence.
Duck, Alice, ... Scientific, ... Lexington.
Kerrick, Felix, ... Classical, ... Calhoun.
Lyle, Joel Irvine, ... Mech. Eng., . . . Lexington.
McDowell, Edward Campbell, . . Mech. Eng., . . . Cynthiana.
Orman, Henry, ... Mech. Eng., . . . Danville.
Sousley, Charles Samuel, ... Normal, ... Lexington.
Trigg, John Henry, ... Scientific, ... New Columbus.
Woods, John Wesley, ... Classical, ... Webbville.

JUNIORS.

Allen, William Raymond, ... Classical, ... Lexington.
Anderson, Henry Clay, ... Mech. Eng., . . . Seven Guns.
Asher, George Matt, ... Mech. Eng., . . . Wasioto.
Atkins, Antoinette Thornton, . . Scientific, ... Lexington.
Blessing, George Frederick, . . . Mech. Eng., . . . Carrollton.
Buffington, Richard Lyell, ... Mech. Eng., . . . Huntington, W. Va.
Bullock, Samuel Archibald, . . . Mech. Eng., . . . Lexington.
Cassidy, Elizabeth, ... Scientific, ... Lexington.
Clark, Mary Eva, ... Scientific, ... Lexington.
Conley, Martin Leslie, ... Mech. Eng., . . . Louisa.
DeBow, Samuel Carruthers, . . . Mech. Eng., . . . Hickman.
DeLong, Edmund Shackleford, . . Classical, ... Lexington.

Downing, George Crutcher, . . . Normal, ... Frankfort.
Duncan, William Adolphus, . . . Mech. Eng., . . . Franklin.
Duck, Berkley Wilson, ... Mech. Eng., . . . Lexington.
Frazer, Joseph Whitney Christie, . Scientific, ... Lexington.
Geary, John Thomas, ... Scientific, ... Lexington.
Gordon, Robert Lee, ... Classical, ... Lexington.
Gunn, Clara Brooke, ... Scientific, ... Lexington.
Haley, John Thomas, ... Scientific, ... Lexington.
Hendren, James Harry, ... Scientific, ... Speedwell.
Hicks, Arthur Lee, ... Classical, ... Danleyton.
Houston, Mark Elliott, ... Mech. Eng., . . . Taylorsville.
Kelly, Thomas Conway, ... Mech. Eng., . . . Georgetown.
McHargue, Barbara Sue, ... Scientific, ... Boreing.
Morgan, George Matt, ... Scientific, ... Lexington.
Nelson, Robert, ... Classical, ... Lexington.
Pope, Robert Lee, ... Classical, ... Barboursville.
Roberts, Daniel Stillwell, ... Classical, ... Ekron.
Scott, John, ... Classical, ... Lexington.
Searcy, Lula, ... Normal, ... Lexington.
Simrall, James O. Harrison, . . . Classical, ... Lexington.
Turner, Job Darbin, ... Normal, ... Minnie.
White, Martha Ripperdan, ... Scientific, ... Lexington.

SOPHOMORES.

Bonnyman, James, Joseph, ... Civ. Eng., ... Lexington.
Brock, George Green, ... Classical, ... Bush.
Brock, La Fayette Breckinridge, . Scientific, ... Lexington.
Bronaugh, William Logan, ... Scientific, ... Lexington.
Bullock, Frederick Dabney, . . . Scientific, ... Lexington.
Bush, George Lewis, ... Mech. Eng., . . . Lexington.
Cahill, William James, ... Mech. Eng., . . . Lexington.
Carpenter, William Thomas, . . . Mech. Eng., . . . Lexington.
Collier, William Henry, ... Mech. Eng., . . . Hooktown.
Davis, Horace Newton, ... Civ. Eng., ... Lexington.
Denny, Van Hamilton, ... Classical, ... Lexington.
Douglass, Frankie Belle, ... Normal, ... Lexington.
Farley, Frank Burton, ... Classical, ... Flat Lick.
Gunn, John Tevis, ... Classical, ... Lexington.
Gunn, Lucian Brook, ... Mech. Eng., . . . Lexington.
Green, Frank Whitney, ... Mech. Eng., . . . Louisville.
Hallam, Mortimer Shepherd, . . . Classical, ... Paris.
Hamilton, Robert Browning, . . . Classical, ... Lexington.
Hamilton, Thomas Smith, ... Mech. Eng., . . . Lexington.
Hammock, David William, ... Scientific, ... Canecreek.
Harris, Columbus Iloff, ... Classical, ... Boxville.

Henry, Edward Joseph, ... Scientific, ... Fort Spring.
Johnson, Jack Stubblefield, . . . Classical, ... Muir.
King, Margaret Isadora, ... Classical, ... Lexington.
King, Thomas Edward, ... Normal, ... Cynthiana.
Kirk, Millard Tevis, ... Scientific, ... Inez.
Lassiter, William Albert, ... Normal, ... Hico.
Loevenhart, Arthur Solomon, . . Scientific, ... Lexington.
Loevenhart, Edgar Charles, . . . Mech. Eng., . . . Lexington.
Lucas, Ida West, ... Classical, ... Lexington.
McElroy, Courtney Watts, ... Civ. Eng., ... Morganfield.
Roach, Thomas Gideon, ... Normal, ... Fulton.
*Scott, Henry Martyn Skillman, . Classical, ... Lexington.
Smith, Sidney Allan, ... Classical, ... Lexington.
Stevens, Edna Earl, ... Scientific, ... Walnut Hill.
Stevens, Jessie, ... Scientific, ... Walnut Hill.
Straus, Charles Louis, ... Mech. Eng., . . . Lexington.
Terry, Lila Beatrice, ... Classical, ... Paris.
Troop, Emma Blanche, ... Normal, ... Lexington.
Trosper, Henderson Taylor, . . . Classical, ... London.
Withers, Raymond, ... Normal, ... Silvan Dale.

*Deceased.

FRESHMEN.

Allen, Leonard Barnes, ... Civ. Eng., ... Lexington.
Bateman, Howard, ... Scientific, ... Lexington.
Brock, Walter Lucas, ... Classical, ... The Glades.
Bryan, Volney Hewitt, ... Scientific, ... Lexington.
Bullock, Joseph Hunt, ... Scientific, ... Lexington.
Cassell, Anna Belle, ... Scientific, ... Lexington.
Copland, Alexander Chisholm, . . Civ. Eng., ... Lexington.
Copland George Forbes, ... Mech. Eng., . . . Lexington.
Cornett, Charles George . . . . . Normal, ... Bush.
Curtis, Clintie, ... Normal, ... Greendale.
Davis, Forrest William, ... Classical, ... Lexington.
Davis, Walter Hendricks, ... Classical, ... Lexington.
Davis, William Tilden, ... Scientific, ... Lexington.
Eubank, Leroy, ... Agricultural, . . Paris.
Faris, Samuel Reed, ... Mech. Eng., . . . Lexington.
Fitzhugh, James Smith, ... Scientific, ... Sulphur Springs.
Graves, Leila May, ... Scientific, ... Lexington.
Grinstead, Wren Jones, ... Scientific, ... Salem, Neb.
Hamilton, Henry Crist, ... Mech. Eng., . . . Salt River.
Hamilton, Hiram Edward, ... Normal, ... Edmonton.
Hill, Matthew Edgar, ... Classical, ... Lexington.
Holbrook, Martha Taylor, ... Scientific, ... Owenton.
Hughes, James William, ... Mech. Eng., . . . Corydon.

Jett, Carter Coleman, ... Mech. Eng., . . . Jett.
Johnson, John Bockover, ... Mech. Eng., . . . Lexington.
Kemper, Charles Madison, ... Scientific, ... Marksburg.
Lynch, Anna Katherine, ... Normal, ... Chilesburg.
Maddocks, Roydon Keith, ... Civ. Eng., ... Carrollton.
Miller, Minnie Blades, ... Scientific, ... Lexington.
Morrow, Joseph, ... Normal, ... Rankin.
Mosely, Norval Wesley, ... Classical, ... Whitesville.
McGovern, Anna Tracy, ... Normal, ... Lexington.
McGovern, Hugh Edward, ... Classical, ... Lexington.
Newman, Herbert, ... Normal, ... Gamaliel.
Newgent, Carrie Effie, ... Normal, ... Fulton.
Overby, Edward Harvey, ... Mech. Eng., . . . Paris.
Roberts, George, ... Normal, ... Burnside.
Sasser, William Henry, ... Scientific, ... London.
Scherffius, William Henry, ... Scientific, ... Lynnville.
Scholtz, Theodore Walter, ... Mech. Eng., . . . Louisville.
Scott, Daniel Price, ... Classical, ... Lexington.
Scott, George, ... Scientific, ... Lexington.
Searcy, Jennie, ... Scientific, ... Lexington.
Shaw, Henry Pleasants, ... Classical, ... Lexington.
Simpson, Eugene Erwin, ... Classical, ... Lexington.
Sneed, John Boswell, ... Mech. Eng., . . . Middlesborough.
Spencer, Margaret Cassell, ... Scientific, ... Lexington.
Stewart, John Bruce, ... Mech. Eng., . . . Huntington, W. Va.
Stout, Walter Raleigh, ... Mech. Eng., . . . Owensboro.
Stoll, John George, ... Classical, ... Lexington.
Sugg, William Herbert, ... Classical, ... Clinton.
Vance, Arthur John, ... Mech. Eng., . . . Springfield.
Vinson, John Robert, ... Civ. Eng., ... Cadiz.
Walsh, Robert Christie, ... Classical, ... Lexington.
Warren, Richard Evans, ... Classical, ... Donerail.
Wilcox, J. Edward, ... Classical, ... Clarksville, Tenn.
Wilmott, Jeannie Walker, ... Scientific, ... Lexington.
Wootton, William Beverly, ... Normal, ... Oak Grove.
Young, Bradley Woodruff, ... Scientific, ... Lexington.

UNCLASSIFIED.

Chowning, Marion Lee, ... Avenstoke.
Dillon, German Polk, ... Edmonton.
Mulligan, Louis Houston, ... Lexington.
Mulligan, Mary Elizabeth, ... Lexington.
Pace, John Clark, ... Hyden.
Roberts, Hilary Bryan, ... Payne's Depot.
Short, John Cleves, ... Lexington.
Swigert, Clara Pratt, ... Lexington.
Warren, Elizabeth Martha, ... Lexington.

NORMAL STUDENTS.

STATE DIPLOMA COURSE.

Bracht, Batta, ... Williamstown.
Croxton, Margaret Todd, ... Paris.
Helvenstein, Willie Mott, ... Mt. Sterling.
McClure, Belle, ... Mt. Sterling.

STATE CERTIFICATE COURSE.

Carrico, Andrew Horace, ... Pennebaker.
Cassity, Leonard, ... Moore's Ferry.
Champion, Edward C., ... Lawrenceburg.
Coleman, Eddie, ... Edmonton.
Cook, William Archibald, ... Orr.
Craig, William James, ... Ensor.
Durrett, Carrie Julia, ... Bloomfield.
Gibbs, Slath Coles, ... Orr.
Gilbert, James Marion, ... Benge.
Grasser, Theodore Emil, ... Petersburgh.
Horton, Minnie Leigh, ... Camargo.
Hubbard, Joseph Abner, ... Beachville.
Ingram, Moses Randall, ... Ingram.
Johnson, Alice Sherwood, ... Lexington.
Johnson, Ishmael, ... Stanton.
Johnson, Joseph Eversole, ... Chavies.
Jones, Thomas Almon, ... Creelsboro.
Leslie, James Franklin, ... Garner.
Martin, Thomas Ellis, ... Minnie.
Marshall, Martin Luther, ... New Columbus.
Morrow, Drue, ... Rankin.
Nunn, Reuben Henry, ... Center.
Pennington, William Lee, ... Sandy Hook.
Peters, Henry Clay, ... Benge.
Poindexter, Mattie Elizabeth, ... Cynthiana.
Reynolds, William Shelby, ... Flat Lick.
Sams, James Roberts, ... Cayce.
Sousely, Edwin Darnall, ... Elizaville.
Stivers, Lena Rivers, ... Waco.
Williams, Anthony Vernon, ... Ekron.
Youtsler, David Elmer, ... Payneville.

COUNTY CERTIFICATE COURSE.

Beatty, Beverly Perry, ... Pigeon Roost.
Biggerstaff, Margaret Belle, ... Brannon.
Brinegar, Ettie, ... Lexington.
Campbell, Nannie, ... Lexington.

Carnahan, Joseph Gordon, ... Manchester.
Cartwright, Ethelind, ... Albany.
Cartwright, Nina Beatrice, ... Albany.
Cleland, Christina, ... Athens.
Combest, John Dowell, ... Philadelphia.
David, Clara, ... Lexington.
Durham, William Humphrey, ... Humphrey.
Finney, Beatrice Middleton, ... Catlettsburgh.
Fitzgerald, Lulie, ... Brighton.
Fitzgerald, Bettie, ... Brighton.
Fortney, William Franklin, ... Artemus.
Gooch, John Letton, ... Lexington.
Gore, Mary Ella, ... Carlisle.
Gore, Lydia Parks, ... Carlisle.
Grimes, Ira Hill, ... Marksburgh.
Higginbottom, Thomas La Fayette, ... Creelsboro.
Hornsey, Florence Saxton Rutherford, ... Lexington.
Hughes, Lena Caroline, ... Lexington.
Johnson, Sim Brownlow, ... Chavies.
Kirk, Pearl Benton, ... Clay City.
Martin, Pierce, ... Humphrey.
May, Alexandria Hay Brand, ... Lexington.
Miller, Linney Dudley, ... Waco.
Moores, George Burrell, ... Waco.
Mullins, James Tilden, ... Pigeon Roost.
Mudd, Thaddeus Warsaw, ... Carson.
Neafus, Gustavus Newton, ... Ekron.
Nichols, Ellis Williams, ... Greenup.
Payne, Alvin Knott, ... Tip Top.
Phelps, Croly Victor, ... Dabney.
Poynter, John Monroe, ... Dabney.
Prewitt, Orpha Kate, ... Nevada.
Ragan, Leonidas, ... Shearer Valley.
Scharfe, Basil Duke, ... Skinnersburgh.
Skidmore, Daniel Boone, ... Bowen.
Taylor, Wade Hampton, ... Trimble.
Taylor, Hattie, ... Baldwin.
Threlkeld, Ford, ... Mason.
Threlkeld, Deward Belmont, ... Mason.
Tudor, Loula, ... White Hall.
Vickery, Isaac Clinton, ... Cooper.
Vigle, John Berry, ... Creelsboro.
Warnock, Sue Bassett, ... Lexington.
Waring, Clarence Bell, ... Lynn.
Whitlock, Nannie Alma, ... Baldwin.

Wilson, Madge Jeanette, ... Waco.
Youtsler, Clifford Afton, ... Payneville.
Youtsler, Elisha, ... Payneville.
Youtsler, Ora, ... Payneville.

ACADEMY.

SECOND YEAR STUDENTS.

Baker, Edwin Harvey, ... Limaburgh.
Cooper, Franklin Kelly, ... Beach Grove.
Copley, Samuel Newberry, ... Inez.
Curtis, Corrine Lyle, ... Greendale.
Deering, David, ... Harrodsburg.
De Long, Arthur Amasa, ... Russell Cave.
Dudley, Benjamin William, ... Lexington.
Glass, Seth Amnon, ... Payne's Depot.
Hestand, John Emerson, ... Edmonton.
Hostetter, Jacob Henry, ... Lexington.
Kidd, Asa Steele, ... Kiddville.
Lyle, Ernest Thornton, ... Lexington.
McGrath, Richard Allen, ... Bryantsville.
McKee, George Robertson, ... Farmdale.
Martin, Louis Wynne, ... Lexington.
Reed, Cecil, ... Benton.
Reese, Asbury Stamper, ... Trenton.
Reisch, Charles, ... Louisville.
Scott, Nellie Dumont, ... Lexington.
Spears, Randa Lou, ... Muir.
Staples, James Henry, ... Lexington.
Stiltz, Fred Godfrey, ... Lexington.
Talbott, Nancy Lane, ... Cynthiana.
Tanner, Olive May, ... Lexington.
Throckmorton, James Withers, ... Cynthiana.
Tichenor, Charles Hall, ... Nuckols.
Van Dermark, Cordelia, ... Lexington.
Webb, William Snyder, ... Greendale.
Woolley, Charles Wickliffe, ... Lexington.

FIRST YEAR STUDENTS.

Asher, Andrew Jackson, ... Wasiota.
Ayres, Philip David, ... Hawesville.
Bell, Ernest, ... Lexington.
Berry, Jesse, ... Whitesville.
Billingsley, Harriet Evans, ... Lexington.
Bona, Louis John, ... Lexington.

Boner, James Alfred, ... Marksbury.
Caddell, William Jasper, ... Holly Hill.
Cain, Harry Raines, ... Elgin, Texas.
Caldwell, James Shipp, ... Paducah.
Cassell, William Payne, ... Lexington.
Cole, Marshall Burton, ... Lexington.
Copland, Jeannie Robertson, ... Lexington.
Crabb, Wesley Valentine, ... Uniontown.
Dempsey, Albert Edward, ... Inez.
Denny, Massy Leavell, ... Lexington.
Eliott, Ira Lett, ... Fiskburgh.
Elliott, John Milward, ... Lexington.
Eubank, Achilles Stewart, ... Indian Fields.
Eubanks, Ambrose Eastin, ... Indian Fields.
Forman, Leila Ellen, ... Lexington.
*Gaitskill, John William, ... Lexington.
George, Edward Sidney, ... Lexington.
Hanna, Edna May, ... Lexington.
Harbison, Lucia Caldwell, ... Lexington.
Harrison, John Christian, ... Lexington.
Hays, Randolph Green, ... Maple Hill.
Hendrix, Walter Potts, ... Flemingsburg.
King, James Floyd, ... Frost.
King, John Gilbert, ... Lexington.
Land, Alice Wilson, ... Lexington.
Liebenstein, Alexander Rafel, ... Cincinnati, Ohio.
Lyle, Cornelius Railey, ... Lexington.
McCall, Ernest Dean, ... Lexington.
McCormick, James Morrison, ... Lexington.
McDanell, Harry Pryor, ... Warsaw.
Masterson, Minnie Imogene, ... Prairie Center, Kan.
Mathews, Lawrence Oldham, ... New Castle.
O'Mahony, Kate Marie, ... Lexington.
Parks, Lyda, ... Pinckard.
Payne, Claude Bryan, ... Payne's Depot.
Pettit, Minnie Barbee, ... Lexington.
Rice, Harry Wilson, ... Danville.
Richmond, Thomas Logan, ... Germantown, Tenn.
Roberts, Nancy Belle, ... Brannon.
Rose, Lida Houston, ... Lexington.
Sawyer, Clifford Lewis, ... Lexington.
Seaman, De Charles, ... Lexington.
Severs, Roscoe Frymire, ... Henderson.
Sheley, Lillie Hellena, ... Lexington.

*Deceased.

Sigler, William Albert, ... Cuba, Tenn.
Slade, DD, ... Lexington.
Tanner, Ernest Estill, ... Greendale.
Taylor, Burgin, ... Richmond.
Thomson, Robert Johnson, ... Frost.
Vaughn, George Walton, ... Vaughn's Mill.
Van Orsdell, James Arthur, ... Lexington.
Watkins, John McMurtry, ... Lexington.
Wheat, Addis Volney, ... Lexington.
Wheat, Dorothy Johnson, ... Lexington.
Wilhoite, Walter Monroe, ... Newberg.
Willett, Oris Varden, ... Leavenworth, Ind.
Williams, Ella Campbell, ... Chilesburg.
Willim, James Frazer, ... Valley.
Willim, John, ... Valley.
Young, Martha Sandusky, ... Pinckard.

STUDENTS OF THE BUSINESS COLLEGE.

Alexander, Hattie, ... Lexington.
Alves, Walter Scott, ... Henderson.
Anderson, Senie Arline, ... Macon, Miss.
Armstrong, Mentz B., ... Lexington.
Arnold, Glendy Burke, ... Frankfort.
Atwood, Frederic Howard, ... Pine Bluff, Ark.
Baldwin, Eugene Jasper, ... Harrodsburg.
Ballard, Elijah Franklin, ... Ballardsville.
Baker, John R., ... Lexington.
Barlow, John Allison, ... Jacksonville.
Baughn, Ottis James, ... Lexington.
Baughman, Jones Adam, ... Hustonville.
Baylor, Lomie Herbert, ... Boonis Path, Va.
Beal, William Henry, ... Largato, Texas.
Beasley, Fannie, ... Lexington.
Beasley, Letcher, ... Lexington.
Beauchamp, Joseph Albert, ... Petrie Station.
Bentley, Nannie Duvall, ... Lexington.
Berkley, Edward P., ... Limestone, Tenn.
Biddle, E. F., ... Cowan.
Biggerstaff, Bessie, ... Lexington.
Bingham, J. H., ... Henshaw.
Blackford, William Wood, ... Nicholasville.
Boone, Robert E., ... Hedges.

Bradley, Waldo Given, ... Lithia, Va.
Bratton, James Webb, ... Winchester.
Brent, Allie Lee, ... Walnut Hill, Va.
Brown, John Clayton, ... McCormick, S. C.
Brown, Frank Human, ... Hamilton, N. C.
Buckalew, Marran Roby, ... Boyd's Tank, Ala.
Burns, Marcus Eugene, ... Spring Station.
Burns, Mary J., ... Lexington.
Bush, Lewis Hampton, ... Winchester.
Call, William Henry, ... Mockville, N. C.
Campbell, Florence, ... Lexington.
Campbell, St. Clin, ... Lexington.
Carpenter, Geo. L., ... Milledgeville.
Carter, Harry, ... Lexington.
Cassell, Sarah Buford, ... Lexington.
Cavens, Sallie, ... Lexington.
Christian, Thomas Alfred, ... Lexington.
Clark, Julia, ... Lexington.
Clendenin, Roy Fleming, ... Paris.
Cobb, Samuel R., ... Lexington.
Cochrane, Lee, ... Waterford.
Collier, Alfred, ... Balance.
Collins, Harold Helm, ... Donerail.
Cook, Robert Abner, ... Cliftonville, Miss.
Cook, Jesse Strother, ... Burgin.
Cook, Chas. B., ... Mt. Carmel.
Coons, Annie, ... Lexington.
Conway, Margaret Bell, ... Winchester.
Cox, Walter Chilton, ... West Liberty.
Cox, Asa Tipler, ... Middleton, Tenn.
Courtney, Robert Hugh, ... Lexington.
Crouch, Archie, ... Poplar Grove.
Darnaby, Luella, ... Lexington.
Darnaby, Mary, ... Lexington.
Davidson, Hallie May, ... Lexington.
Delong, Geo. Albert, ... Lexington.
Denton, Thomas J., ... Lexington.
Demaree, William Yocum, ... Louisville.
Donlan, Maggie Cecilia, ... Lexington.
Duncan, Newell Bing, ... Lexington.
Erwin, D. M., ... Gainesville.
Falkner, James Butler, ... Lexington.
Farmer, Lilian Myrtle, ... Los Angeles, Cal.
Fidler, W. C., ... Lawrenceburg.
Fitzpatrick, John, ... Lexington.

Fieber, Caroline Virginia, ... Cincinnati, O.
Fitzhugh, Horace Ashton, ... Owens, Va.
Fischer, Margaret E., ... New Orleans, La.
Flanary, Alonzo, ... Dryden, Va.
Foley, John Jerome, ... Hunley.
Fooshe, Fuller Wright, ... Coronaca, S. C.
Foster, Edgar Allen, ... McCaleb, Miss.
Frost, Henry Alvis, ... Thibodeaux, La.
Frost, Scudday D., ... Thibodeaux, La.
Garrett, Stephen Nelson, ... Ellendale, La.
Gibbons, Mamie, ... Lexington.
Gill, William Francis, ... Lexington.
Gillespie, Richard, ... Lexington.
Golden, Mildred, ... Hedges.
Green, Mrs. Manora, ... Lexington.
Gunn, Thomas, ... Lexington.
Haggard, Annie Mayme, ... Winchester.
Haggard, Maurie, ... Winchester.
Hall, James Ewing, ... Keyser, W. Va.
Hancock, Andrew Jackson, ... Frankfort.
Harkins, Clara, ... Lexington.
Hedrick, Ivelia, ... Farmer's.
Henderson, Walter Howard, ... Eubanks.
Hemphill, Geo. R., ... Williamstown.
Hornsey, Florence S. R., ... Lexington.
Hunt, H. Tighlman, ... Winchester.
Hutchison, Henry Judd, ... Lexington.
Hutchison, Mattie D., ... Lexington.
Hiatt, William M., ... Lexington.
Huffman, James W., ... Lexington.
Huffman, Chas. B., ... Lexington.
Hume, Earl Reed, ... Sherman.
Hyden, William Hocker, ... Hyden.
Jacoby, Joseph, ... Hutchison.
Jarman, Geo. Elsworth, ... Chatham.
Jessie, Palmer Crawford, ... Dryden, Va.
Jochum, Katharine M., ... Lexington.
Jones, Geo. Washington, ... Loretta, N. C.
Jones, Hattie D., ... Lexington.
Johnson, Cave, ... Clarksville, Tenn.
Johnson, Frank Ashbury, ... Louisa.
Johnson, John J., ... Louisa.
Joyce, Eugene Marvin, ... Coronaca, S. C.
Kenney, John Wilmott, ... Hutchison.
Kidd, Sallie M., ... Lexington.

Klinkinbeard, E. S. K., ... Winchester.
Koonz, Louis, ... Lexington.
Kroesing, Lillie, ... Lexington.
Lafferty, Sudie, ... Dry Ridge.
Leigh, Benj. Albert, ... Yarnallton.
Ligon, Joe William, ... Greenwood, S. C.
Littell, Clark, ... Williamstown.
Lutes, Keene, ... Pine Grove.
Lynch, Mary C., ... Lexington.
Mann, Allie Dillis, ... Carlisle.
Malone, James M., ... New Canton, Tenn.
Malnoe, Armound Joseph, ... Paris, France.
Marbert, William Griffith, ... Greenwood, S. C.
Marshall, Walter, ... Columbus.
Mason, William F., ... Rosedale.
McDonald, John H., ... Winchester.
McClintock, Samuel Sweney, ... Lexington.
McCauliffe, Mary C., ... Lexington.
McElhinny, Martha M., ... Lexington.
McGarrity, Samuel Columbus, ... Chester, Miss.
McGrael, John Anthony, ... Nashville, Ind.
McKenna, Annie, ... Lexington.
McVey, Horace C., ... Lexington.
Mefford, Noel Clifton, ... Donerail.
Megee, Leslie Robert, ... Lexington.
Mers, Walter Chandler, ... Ewing.
Miller, Annie, ... Lexington.
Mitchell, Margaret A., ... Richmond.
Mickler, Louis A., ... Lexington.
Mizner, Hamlet, ... Knoxville, Tenn.
Moore, Blanch Lorena, ... Lexington.
Moore, Irwin Monroe, ... Lewisburg, Tenn.
Mullen, Edwin Ernest, ... Lexington.
Mumford, Sallie B., ... New Orleans, La.
Myers, Benjamin, ... Miranda.
Nichols, John Stuart, ... Coronaca, S. C.
Nichols, Albert Henry, ... Salvisa.
Norton, Lottie, ... Piqua, Ohio.
Otto, Henry Clay, ... Springdale.
Patton, Amanda K., ... Lexington.
Parsons, Charles M., ... Pikeville.
Peratt, Chas. Oscar, ... Hilltop.
Pickens, Okey Pitt, ... Racine, Ohio.
Price, Joseph William, ... Owensboro.
Reed, Ethel, ... Lexington.

Reed, Henrietta, ... Lexington.
Rhein, Marcella, ... Lexington.
Rice, Hallock B., ... Sandersville.
Richmond, Carrie F., ... Lexington.
Riffe, Jessie Lapsey McKee, ... Hustonville.
Riley, James William, ... Island Mills, Tenn.
Roberts, Lora Lee, ... Lexington.
Rodegap, Gracie, ... Lexington.
Rood, Robert Stevens, ... Ford.
Rose, James Roy B., ... Hustonville.
Ross, Robert C., ... Mayhew.
Rudy, May, ... Richmond, Ind.
Saddler, Francis Everett, ... Hawesville.
Sallee, Lillie May, ... Lexington.
Schwaniger, Josephine, ... Lexington.
Sebree, Owen C., ... New Columbus.
Sells, Samuel Riley, ... Bristol, Tenn.
Shaw, William Robert, ... Cadiz.
Shedd, Harry, ... Lexington.
Shedd, William Buchard, ... Lexington.
Shelby, Thomas Hart, ... Lexington,
Short, Laura Estella, ... Parksville.
Smith, Alphonsus, ... Lexington.
Smith, Lucian Lyne, ... Lexington.
Sousley, Norene Belle, ... Flemingsburg,
Spears, Henry Hopson, ... Lexington.
Spencer, H. F., ... Elizaville.
Stewart, Wallace Agnes, ... Chambers.
Stone, Albert H., ... Lexington.
Strode, William Hall, ... Lexington.
Strother, Jessie, ... Grayson.
Strader, Geo. B., ... Lexington.
Stephanski, John, ... Lexington.
Sturm, Joseph M., ... Demopolis, Ala.
Sudduth, Geo. Alexander. . . . . Lexington.
Sutphin, Mattie, ... Lexington.
Sweeney, Clark Walter, ... Sinia.
Taylor, Burgin, ... Richmond.
Teager, Jacob Staley, ... Lexington.
Terhune, Charles, ... Harrodsburg.
Titsworth, Leonard Ruben, ... Canadian, Texas.
Tumey, Chas. Menton, ... Fenwick.
Turner, Charles Foushee, ... Lexington.
Vanarsdall, James Harvard, ... Harrodsburg.
Vandiver, John Green, ... Faubush.

Wallace, Willie, ... Maysville.
Walker, Robert B., ... Lexington.
Walker, William Ruel, ... Columbia.
Walker, Estel Earl, ... Nashville.
Walters, Annie, ... Lexington.
Warren, Garler, ... Lexington.
Wells, Martin Maxwell, ... Greenwood.
Webster, Daniel Thomas, ... Tuscaloosa.
Whittington, Clarence, ... Valdosta.
West, Georgia B., ... Lexington.
Wickliffe, Charles Henry, ... Lexington.
Wilkinson, Leslie Irwin, ... Thorn Hill.
Williams, William P., ... Sherman.
Willmott, John Webb, ... Lexington.
Williams, Irvine Ansel, ... Ty Ty.
Williams, Jesse C., ... Fort Ogden.
Williamson, Raymond, ... Oxford.
Wiggins, C. P., ... Piqua.
Wilson, Isaac M., ... Winchester.
Woolfolk, John Harris, ... Lexington.
Woods, Eugene Dudley, ... McAfee.
Wooton, Shirely, ... Manchester.
Wolverton, Artie, ... Lexington.
Young, John Ellisworth, ... Astoria.

REGULATIONS.

TRAVELING EXPENSES OF STUDENTS.

By the terms of the recent legislation upon the Agricultural and Mechanical College of Kentucky, a county appointee is entitled to have his traveling expenses from home to the College and return paid by the College, on the following conditions:

1st. He must be appointed according to law, a copy of which is in the hands of each County Superintendent of Schools.

2d. He must travel from home to the College by the shortest, least expensive and most expeditious route, and take receipts for all necessary expenses of travel, depositing the same, upon arrival, with the President of the College.

3d. He must present himself for matriculation within one week after the beginning of the fall term of the collegiate year.

4th. He must bring a certificate of good moral character, signed by two or more well-known and responsible citizens of his county.

5th. He must pass creditably the entrance examination required for admission.

6th. He must remain a student of the College for ten consecutive months, or one collegiate year.

7th. He must maintain during the collegiate year such class standing as will enable him to pass the final examination at the end of the year.

8th. He must maintain a good character and maintain such class standing as the regulations require.

If at the end of the collegiate year the foregoing conditions have been complied with, the President of the College shall certify the fact to the Treasurer of the College, who, upon said certificates as vouchers, shall pay to the appointee the amount shown by the receipts aforesaid, and in addition thereto the sum for discharging the necessary expenses to be incurred in returning home.

COLLEGE EXPENSES.

The necessary expenses of a student while at College need not exceed the following estimates. As a rule the less pocket-money allowed by parents or guardians the better it is for the pupil.

When supplies of pocket-money are kept short the opportunity for contracting vicious habits is correspondingly diminished. Students should not be allowed by their parents to create any debts. All moneys intended for the use of the students should be deposited with the Commandant.

For a county appointee, occupying a room in the dormitory and boarding in the common mess, the necessary expenses are as follows:

Tuition free,	$000 00
Matriculation free,	000 00
Room rent free,	000 00
Use of furniture in room,	2 50
Washing, about,	10 00
Uniform,	19 00
Board, 38 weeks, at $2.25 per week,	85 00
Books, about,	8 00
Total,	$124 50

Each room must be provided by each occupant thereof, *at his own expense*, with a good mattrass, three comforts or blankets, one pillow, three pillow-slips, four sheets, looking-glass, blacking-brush, hair-brush, clothes-broom or brush. Some of these articles may be brought from home by the student.

For students who are not supplied with appointments from the Legislative Representative Districts of the Commonwealth, and who board in private families, the necessary expenses will be as follows:

Tuition fee,	$15 00	
Matriculation fee,	5 00	
Board and lodging, 38 weeks, at $3.50 to $4 per week,	133 00 to	$152 00
Washing,	10 00	
Uniform,	19 00	
Books and stationery,	10 00	
Total,	$192 00 to	$201 00

Those who occupy rooms in the dormitory pay $6.50 each (yearly) for the use of a room and its furniture. A standing deposit of $5 is required from each student, which deposit is refunded when his connection with the College is terminated, less the amount which may be assessed against him for damages

done to the buildings, furniture, or premises. All damages, injuries, defacements, etc., which rooms and furniture in the dormitory sustain during occupancy will be charged to the occupant thereof. All injuries, damages, defacements, etc., which the halls and dining-room sustain will, unless specifically traced, be charged to the occupants of the respective sections collectively.

BOARDING.

For the accommodation of students sent as beneficiaries of Legislative Representative Districts of the State, rooms for one hundred and forty students are provided in the dormitories. To these, good substantial board is furnished at $2.25 per week, payable weekly in advance; but no student under seventeen years of age will be permitted to room in the dormitories, unless all of his classes shall be in one of the regular collegiate courses. Good boarding with fuel, lights, and furnished room, can be obtained in private families at rates varying from $3.50 to $4 per week.

The students who board in the dormitories are, for business purposes, organized at the beginning of the collegiate year under a Chairman and Secretary of their own choice, whose successors are elected on the first Tuesday of each term, and who serve for one term. At the business meeting, held on Tuesday night of each week, the weekly dues, $2.25, are paid. The boarding department is managed by a Board consisting of the President of the College, the Commandant, a Treasurer, who is a member of the Faculty, and into whose hands all the weekly dues are placed when collected, a Steward, and the Chairman and Secretary selected by the students. It will thus be seen that the boarding department has no official connection with the College authorities. The College, as such, does not board the students, and is in no sense responsible for any debts created by the boarding department. Three members of the Faculty, in their individual capacity, assist in the management of its funds.

No provision is made for women in the dormitories.

BENEFICIARIES.

Each Legislative Representative District is allowed to send, on competitive examination, *one properly prepared student* each year, to this College, free of charge for tuition.

Beneficiaries are appointed on competitive examination. A Board of Examiners is appointed for this purpose by the County Superintendent of common schools. The results of examination are reported to the Superintendent, who, from the data thus furnished, selects the appointee. Examinations are made upon subjects transmitted to the County Superintendent by the Faculty of the College. One appointment is made each year.

Appointments are made by the County Superintendent between the first day of June and the first day of August of each year. Appointments when made should be immediately certified to the President of the College.

Appointments for the College proper, viz., the Agricultural, Mechanical Engineering, Civil Engineering, Scientific, Classical, and Normal Collegiate courses are all valid for the term of years necessary to complete the course of study in which the appointee matriculates. This includes the course in the Academy.

It follows from the above that a county which makes its appointments regularly according to law will have for the session of 1893–4 one appointee in the College, for the session of 1894–5 two appointees, for the session of 1895–6 three appointees, for the session of 1896–7 four appointees. When the first appointee completes his course, or ceases to be a student, another appointee takes his place. When the quota of a county is full it will have at least four appointees in regular attendance.

Each appointee is required to pass an entrance examination at the College on the subjects comprising all that is embraced in Arithmetic, English Grammar, Geography, and United States History, in the Common School Course.

All persons are eligible between the ages of fourteen and twenty-four who have completed the Common School Course—preference being given to young men or women whose means are limited, to aid whom this provision is especially intended.

Any person not an appointee may enter the College on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from payment of fees.

APPOINTEES TO THE NORMAL COURSE.

The law makes provision for the appointment of four teachers, or persons preparing to teach, each year. Appointments may be made and certified to the President of the College

between the first day of July and the thirty-first day of December of each year.

Appointments to the Normal School are tenable for one year.

Applicants for appointments are examined by a Board of Examiners appointed by the County Superintendent on subjects transmitted by the Faculty, viz., upon Arithmetic, English Grammar, United States History, and Geography. They should not be less than seventeen years of age. They are also required to pass an entrance examination at the College. They must likewise bring certificates of good moral character.

Matriculates in the Normal Department will be required to sign an obligation to teach in the Common Schools of Kentucky for as many months as they receive free tuition.

LOCAL EXAMINATIONS.

The Trustees of the State College, at their meeting in June, 1895, endorsed the "Local Entrance Examination Plan" now established by other colleges in other States. This is done for the purpose of placing all parts of the State on an equality as regards entrance to the College proper.

The examination here proposed is in no sense a substitute for the "County Appointee Examination," but may, if the appointee is qualified to enter the College proper, be made supplementary to that, determining his status as regards the classes there. But this examination is not limited to the appointees. It may be taken by any one desiring to try for entrance into any class in the College not lower than freshman.

It is proposed to hold these "Local Entrance Examinations" in June in districts somewhat remote from Lexington, as well as in Lexington itself. The questions will be prepared at the College and sent out under the care of some member of the Faculty (or other properly constituted agent) who, after conducting the examination, will in most cases send the papers back to the Examination Committee at the College to be passed upon.

The Lexington examination for the session of 1896–7 will be held in the Main Building of the State College, June 9th and 10th, beginning at 9 A. M. each day.

ACCREDITED SCHOOLS.

Schools, whether public or private, may be accredited in accordance with a resolution of the Faculty providing that graduates of these may be exempted from entrance examinations to the College where the heads of these schools have complied with certain conditions.

Further than this the Faculty will recommend to the Board of Trustees that an annual award of a free scholarship be made to the pupil in each accredited school who has completed the certified course with the highest class standing.

Thus far twenty-four schools have complied with the necessary conditions of the above mentioned resolution, and are entitled to the privileges offered. These schools are as follows:

*Ashland High School, J. G. Crabbe, Superintendent.
†Bellevue High School, J. H. N. Downes, Superintendent.
†Carlisle High School, W. F. Ramey, Superintendent.
†Corydon High School, C. E. Dudley, Superintendent.
†Covington High School, John Morris, Superintendent.
†Cynthiana High School, C. A. Leonard, Superintendent.
†Dayton High School, R. M. Mitchell, Superintendent.
†Frankfort High School, McHenry Rhoads, Superintendent.
†Harrodsburg High School, C. W. Bell, Superintendent.
†Hopkinsville High School, L. M. McCartney, Superintendent.
†Lawrenceburg High School, ... , Superintendent.
*Louisville High Schools, E. H. Mark, Superintendent.
The Female High School, W. H. Bartholomew, Principal.
The Male High School, Maurice Kirby, Principal.
The Manual Training School, H. G. Brownell, Principal.
†Middlesborough High School, C. H. Gardinier, Superintendent.
†Newport High School, John Burk, Superintendent.
*Nicholasville High School, R. G. Lowry, Superintendent.
†Paris High School, E. W. Weaver, Superintendent.
†Paducah High School, Geo. O. McBroom, Superintendent.
†Jessamine Institute (Nicholasville), Mrs. Vineyard, Principal.
†Prof. Green's School (Harrodsburg), ... , Principal.
‡Prof. Smith's Private School (Cynthiana), W. F. Smith, Principal.
‡Prof. Gordon's Private School (Pewee Valley), A. N. Gordon, Principal.
‡Lexington Preparatory School, D. A. Chenault, Principal.

An application from a Superintendent or Principal requesting that his school be placed in a list with the above, should be accompanied by a report or catalogue of the school giving the course of study, the completion of which is required for graduation.

*Accredited to Sophomore.
†Accredited to Freshman.
‡Accredited on subjects covered by certificates of proficiency.

STUDENT LABOR.

The work necessary for carrying on the agricultural and horticultural operations of the College is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is two-fold: to put in practice the instruction received in the class-room, and to assist students who are in need of money. The experience of this College is that of Agricultural Colleges generally—that compensated labor is not remunerative to the College.

The College assumes no obligation to furnish students an opportunity to labor for compensation.

Students are paid monthly for the service rendered, and apply the money as they see proper.

No student, however, should come to this College expecting to maintain himself exclusively by compensated labor. At least seventy-five dollars per annum, exclusive of his earnings while here, should be at the command of every student who wishes to avail himself of the advantages of the system of compensated labor.

CERTIFICATES OF CHARACTER.

All applications for admission into any class of the College or Academy must bring satisfactory testimonials of good moral character.

THE MONITRESS.

The young women who attend the College have assigned for their exclusive use a large and well-appointed study room. Here, while they are not engaged in the class-rooms or in the chapel, they are under the constant and strict supervision of the Monitress, Mrs. Blackburn, who has been long connected with the College and is well qualified for her duties.

CALENDAR FOR 1896-7.

1896.

Entrance Examinations	June 9th and Sept. 7th.
First Term begins	Thursday, Sept. 10th.
Thanksgiving	Thursday, Nov. 26th.
Board of Trustees meet	Tuesday, Dec. 8th.
Christmas Holidays begin	Wednesday, Dec. 23d, 12 M

1897.

College duties resumed	Monday, Jan. 4th.
Second Term begins	Monday, Jan. 25th.
Union Literary Society contest	Monday, Feb. 22d.
Patterson Society contest	Friday, March 26th.
Senior Examinations begin	Monday, May 10th.
General Examinations begin	Monday, May 17th.
Board of Trustees meet	Tuesday, June 1st.
Class Day	Wednesday, June 2d.
Alumni Banquet	Wednesday, June 2d.
Commencement	Thursday, June 3d.

COLLEGE DIRECTORY.

	RESIDENCE.	COLLEGE QUARTERS.
ANDERSON, F. PAUL,	69 Kentucky Ave.,	Mechanical Hall.
AUBREY, THOMAS,	243 S. Limestone St.,	College Boiler Room.
BENNETT, S. E.,	154 S. Limestone St.,	Veterinary Clinic Building.
BLACKBURN, MRS. LUCY B.	Central Ave.,	No. 14, 1st Floor Main Building.
BLANTON, R. L.,	50 W. Second St.,	No. 13, 1st Floor Main Building.
CURTIS, H. E.,	126 S. Upper St.,	Chem'l Lab., 1st Floor Station Bldg.
DAVIS, J. M.,	122 S. Limestone St.,	No. 1, Basement Main Building.
DICKER, JOS.,	26 Virginia Ave.,	Mechanical Hall.
GARMAN, H.,	424 S. Limestone St.,	1st Floor and Basement Station Bldg.
HARPER, J. N.,	S. Limestone St.,	Experiment Farm.
HODGES, MISS MARY,	231 E. High St.,	No. 10, 1st Floor Main Building.
JOHNSON, J. R.,	New Dormitory,	Wood Shop, Mechanical Hall.
KASTLE, J. H.,	151 E. High St.,	2d Floor Station Building.
KEARNEY, W. J.,	21 Old Dormitory,	Ex. Lab., Mechanical Hall.
LOGAN, J. L.,	97 S. Broadway,	No. 2, Basement Main Building.
MATHEWS, C. W.,	410 S. Limestone St.,	Basement Station Building.
MILLER, A. M.,	124 S. Broadway,	No. 16, Main Bldg. & Bas'm't St. Bldg.
MILLIGAN, R. A.,	492 S. Limestone St.,	Mechanical Hall.
MUNCY, V. E.,	116 E. Maxwell St.,	No. 10, 1st Foor Main Building.
MURRAY, JAMES,	428 S. Limestone St.,	College Conservatory.
MURRILL, PAUL,	196 E. High St.,	Chem'l Lab., Experiment Station.
NEVILLE, J. H.,	218 W. Main St.,	No. 21, 3d Floor Main Building.
NELSON, J. P.,	Cor. Rose and Maxwell,	2d Floor Mechanical Hall.
NEWMAN, J. W.,	124 S. Broadway,	No. 8, 1st Floor Main Building.
PATTERSON, J. K.,	Brick Dwlg. on Campus,	No. 12, 1st Floor Main Building.
PATTERSON, W. K.,	Brick Dwlg. on Campus,	No. 17, 2d Floor Main Building.
PEEK, GEO. T.,	28 Virginia Ave.,	Mechanical Hall.
PENCE, M. L.,	108 Marino St.,	Nos. 5 and 7, Basement Main Building
PETER, A. M.,	171 Rose St.,	Chem'l Lab., 1st Floor Station Bldg.
PRYOR, J. W.	73 West Third St.,	No. 9, 1st Floor Main Building.
ROARK, R. N.,	420 S. Limestone St.,	No. 11, 1st Floor Main Building.
SCOVELL, M. A.,	Experiment Farm,	Office, 1st Floor Station Building.
SHACKLEFORD, JOHN,	71 Woodland Ave.,	No. 19, 2d Floor Main Building.
SPURR, R. J.,	County,	Experiment Farm.
SHELBY, MISS A. M.,	70 Ashland Ave.,	Office, 1st Floor Station Building.
SHELBY, MISS ROSE,	70 Ashland Ave.,	Office, Mechanical Hall.
SWIGERT, S. M.,	Cottage on Campus,	No. 5, Main Building.
WELLS, J. H.,	107 E. Maxwell St.,	2d Floor Mechanical Hall.
WERNICKE, PAUL,	107 E. Maxwell St.,	No. 20, 2d Floor Main Building.
WHITE, J. G.,	140 E. Maxwell St.,	No. 15, 1st Floor Main Building.

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OF THE

STATE COLLEGE OF KENTUCKY

FOR THE THIRTY-FIRST SESSION

1896–1897

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MAIN BUILDING.

CATALOGUE

OF THE

OFFICERS, STUDIES, AND STUDENTS

OF THE

STATE COLLEGE OF KENTUCKY,

LEXINGTON,

TOGETHER WITH THE REGULATIONS,

FOR THE

SESSION ENDING JUNE 3, 1897.

LOUISVILLE:
JOHN P. MORTON & COMPANY.
1897

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THE STATE COLLEGE OF KENTUCKY.

HISTORY.

AGRICULTURAL and Mechanical Colleges in the United States owe their origin to an act of Congress, entitled "An act Donating Public Lands to the several States and Territories which may provide Colleges for the benefit of Agriculture and the Mechanic Arts," approved July 2, 1862. The amount of land donated was 30,000 acres for each representative in the National Congress. Under this allotment Kentucky received 330,000 acres. Several years elapsed before the Commonwealth established an Agricultural and Mechanical College under the act. When established it was not placed upon an independent basis, but was made one of the Colleges of Kentucky University, to which institution the annual interest of the proceeds of the Congressional land grant was to be given for the purpose of carrying on its operations. The land-scrip had meanwhile been sold for fifty cents per acre, and the amount received—$165,000—invested in six per cent. Kentucky State bonds, of which the State became custodian in trust for the College.

The connection with Kentucky University continued till 1878, when the act of 1865, making it one of the Colleges of said University, was repealed, and a Commission was appointed to recommend to the Legislature of 1879–80 a plan of organization for an institution, including an Agricultural and Mechanical College, such as the necessities of the Commonwealth required. The city of Lexington offered to the Commission (which was also authorized to recommend to the General Assembly the place which, all things considered, offered the best and greatest inducements for the future and permanent location of the College), the City Park, containing fifty-two acres of land, within the limits of this city, and thirty thousand dollars in city bonds, for the erection of buildings. This offer the county of Fayette supplemented by twenty thousand dollars in county bonds, to be used either for the erection of buildings or for the purchase of land. The offers of the city of Lexington and of the county of Fayette were accepted by the General Assembly.

By the act of incorporation, and the amendments thereto, constituting the charter of the Agricultural and Mechanical College of Kentucky, liberal provision is made for educating, free of tuition, the energetic young men of the Commonwealth whose means are limited. The Normal Department, for which provision is also made, is intended to aid in building up the Common School system by furnishing properly qualified teachers. This College, with the additional departments which will, from time to time, be opened as the means placed at the disposal of the Trustees allow, will, it is hoped, in the not distant future, do a great work in advancing the educational interests of Kentucky. Being entirely undenominational in its character it will appeal with confidence to the people of all creeds and of no creed, and will endeavor, in strict conformity with the requirements of its organic law, to afford equal advantages to all, exclusive advantages to none. The liberality of the Commonwealth in supplementing the inadequate annual income arising from the proceeds of the land-scrip invested in State bonds, will, it is believed, enable the Trustees to begin and carry on, upon a scale commensurate with the wants of our people, the operations of the institution whose management and oversight have been committed to them by the General Assembly of Kentucky.

LEADING OBJECT.

In the act of Congress making provision for the class of colleges to which the State College partly belongs, it is declared "that their leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." To the departments contemplated in the act, a Normal School has been added by the State and an Experiment Station by the United States.

THE NORMAL SCHOOL.

The Normal Department of the State College exists under the authority of acts of the General Assembly, approved April 23 and April 29, 1880. Section 7 of the first act briefly defines the object for which the Department was established, "a Normal

Department or course of instruction for irregular periods, designed more particularly, but not exclusively, to qualify teachers for common and other schools, shall be established in connection with the College." The second act provides the necessary endowment to make the Department effective.

The number of students annually enrolled in the Normal School has exceeded expectation. As they come from all parts of the State, and many of them return well prepared for the profession of teaching, they must greatly promote the efficiency of our common schools generally, and demonstrate the wisdom of the General Assembly in providing an inexpensive Normal School, centrally located and easy of access, to keep the State always supplied with well-trained teachers.

THE KENTUCKY EXPERIMENT STATION.

This Department of the State College originated in a resolution of the Executive Committee of the Board of Trustees, adopted in September, 1885, when the Department was organized and a Director appointed. In 1886 the Station was recognized and named by the General Assembly, and in 1887 it and a similar Station in every other State were each endowed by Congress with an annual appropriation of $15,000.

The work of the Station is directed to two objects: 1. To a constant succession of experiments made by specialists, in order to learn what applications of science will insure the best returns from the farm, the garden, the orchard, the vineyard, the stock-yard, and the dairy. 2. To the publication of bulletins announcing such results of the experiments as are found to be valuable to any of our people that seek profit from either of those prime sources of wealth—the soil, the flock, or the herd.

Results of experiments have been published in six reports and fifty-three bulletins, and general appreciation of their utility is shown in the fact that, while no bulletin is sent except upon application for it, the mailing list of the Station contains more than 11,000 names, and is ever increasing.

With an ample endowment, a large and commodious building planned for the purpose, adequate apparatus, a good experimental farm conveniently situated, and seven capable scientists always employed and in correspondence with other stations, The Ken-

tucky Experiment Station is not only an important adjunct of the College in the education of students for the leading industrial pursuits, but directly or indirectly through the wide and continual diffusion of knowledge for the benefit of so large a proportion of our population, it is bound to be extremely useful to the Commonwealth at large.

LOCATION.

The Agricultural and Mechanical College of Kentucky is established in the old City Park grounds of the City of Lexington, given to the Commonwealth for this purpose. The site is elevated, and commands a good view of the city and surrounding country.

Lexington is now the most important railroad center in Kentucky, being in immediate communication with Louisville, Cincinnati, Maysville, Chattanooga, and with more than seventy counties in the Commonwealth. The long-established reputation of the city for refinement and culture renders it attractive as a seat of learning, and the large body of fertile country adjacent, known as the "Blue Grass Region," with its splendid stock farms, affords unsurpassed advantages to the student of agriculture who desires to make himself familiar with the best breeds of horses, cattle, sheep, and swine in America.

GROUNDS.

The campus of the College consists of fifty-two acres of land, located within the corporate limits of Lexington. The South Limestone Street electric car line extends along the greater part of its western border, giving opportunity to reach in a few minutes any part of the city. The campus is laid out in walks, drives, and lawns, and is planted with a choice variety of native and exotic trees and shrubs, to which additions are constantly being made. A portion of the land has recently been reserved for a botanical garden in which will be grown the more desirable native plants, with a view to testing their adaptability to cultivation, and to give increased facilities to students taking agricultural and biological courses. Two and a half acres, forming the northeast portion of the campus, inclosed and provided with a grand stand, is devoted to the field sports of students.

About three quarters of a mile south of the campus, on the Nicholasville pike, an extension of South Limestone Street, is the Experiment Station Farm, consisting of forty-eight and a

half acres. Here the field experiments of the Station are conducted, and students have opportunities to witness tests of varieties of field crops, dairy tests, fertilizer tests, fruit-spraying tests, in short, all the scientific experimentation of a thoroughly equipped and organized Station. The front of the farm is pasture and orchard. The back portion is divided off into two hundred one-tenth acre plots, for convenience in making crop tests.

BUILDINGS.

The main college building is a structure of stone and brick, 140 feet long and 68 feet in width. It contains the office of the President and of the Business Agent, and on the third floor, counting the basement floor as one, is the chapel, in which each day the students and Faculty meet, and in which are held public gatherings and such other meetings as bring together the entire student body. The remaining space in this building is occupied by recitation rooms and by the society rooms of the students.

The Station building is a handsome structure, well planned for the object for which it is made. It is seventy feet in length by fifty-four feet in width, with a tower projection in front, and an octagonal projection eighteen by eighteen on the north side. The building is two stories high, and a basement eleven feet from floor to ceiling. The main entrance is on the first floor, on the west side of the building, through an archway fifteen feet wide. The basement is occupied in part by the Station and in part by the College. The next floor above is devoted to office and laboratory work of the Station, while the upper floor accommodates the College work in Chemistry.

The building devoted to Mechanical Engineering covers altogether an area of about 20,000 feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in this branch of engineering.

Two large brick dormitories on the campus afford boarding conveniences for students who wish to lessen expense in this direction. Other buildings on the campus are a brick dwelling for the President and a cottage occupied by the Commandant.

On the Experiment Farm are a brick dwelling occupied by the Director of the Station, and the usual farm buildings for the care of tools, the protection of stock, and the like.

BOARD OF TRUSTEES.

His Excellency Governor William O. Bradley,
CHAIRMAN EX-OFFICIO.

President James K. Patterson,
MEMBER EX-OFFICIO.

TERM EXPIRES JANUARY, 1898.

Hon. R. A. Spurr	Pine Grove	Fayette County.
David H. James, Esq.	Lexington	Fayette County.
Judge Thomas H. Hines	Frankfort	Franklin County.
Judge Robert Riddell	Irvine	Estill County.
George V. Green, Esq	Hopkinsville	Christian County.

TERM EXPIRES JANUARY, 1900.

Gen. D. C. Buell	Paradise	Muhlenberg County.
J. C. Flournoy, Esq	Fulton	Fulton County.
Hon. J. T. Gathright	Louisville	Jefferson County.
Hon. A. P. Gooding	Mayslick	Mason County.
Hon. W. F. Peak	Bedford	Trimble County.

TERM EXPIRES JANUARY, 1902.

Gen. E. H. Hobson	Greensburg	Green County.
John G. Matthews, Esq	Barboursville	Knox County.
Hon. Hart Boswell	Lexington	Fayette County.
John B. Kennedy, Esq	Paris	Bourbon County.
Capt. Thomas Todd	Shelbyville	Shelby County.

V. E. Muncy,
Secretary.

EXECUTIVE COMMITTEE.

Judge Thomas H. Hines,
Chairman.

Hon. R. A. Spurr.
David H. James, Esq.
Hon. J. T. Gathright.
Judge Robert Riddell.

V. E. Muncy,
Secretary.

FACULTY.

(In the order of appointment.)

JAMES KENNEDY PATTERSON, PH. D., LL.D., F. S. A., *President*,
Professor of History, Political Economy, and Metaphysics.

JOHN SHACKLEFORD, A. M., *Vice-President*,
Professor of English and Logic.

JAMES GARRARD WHITE, A. M.,
Professor of Mathematics and Astronomy.

JOHN HENRY NEVILLE, A. M.,
Professor of Greek and Latin.

WALTER KENNEDY PATTERSON, A. M.,
Principal of the Academy.

JOSEPH HOEING KASTLE, PH. D.,
Professor of Chemistry.

RURIC NEVILLE ROARK, PH. D.,
Principal of the Normal School.

JOSEPH WILLIAM PRYOR, M. D.,
Professor of Anatomy and Physiology.

FREDERIC PAUL ANDERSON, M. E.,
Professor of Mechanical Engineering.

JAMES POYNTZ NELSON, C. E., M. E.,
Professor of Civil Engineering.

CLARENCE WENTWORTH MATHEWS, B. S.,
Professor of Botany, Horticulture, and Agriculture.

ARTHUR MCQUISTON MILLER, A. M.,
Professor of Geology and Zoölogy.

MERRY LEWIS PENCE, M. S.,
Professor of Physics.

SAMUEL MILLER SWIGERT, CAPT. 2D CAV., U. S. A.,
Commandant and Professor of Military Science.

PAUL WERNICKE,
Professor of Modern Languages.

INSTRUCTORS.

JOHN LEWIS LOGAN, A. B.,
First Assistant in the Academy.

JOHN WESLEY NEWMAN, B. S.,
Assistant in the Normal School.

ROBERT LEE BLANTON, M. LIT.,
Assistant in Greek and Latin.

JOSEPH MORTON DAVIS, A. B., B. S.,
Second Assistant in the Academy.

VICTOR EMANUEL MUNCY, B. S.,
Third Assistant in the Academy.

JAMES HENRY WELLS, M. E.,
Assistant in Mechanical Engineering.

JAMES RICHARD JOHNSON, B. M. E.,
Assistant in Shop-work and Drawing.

ERNEST FRANK BROWN, A. B.,
Instructor in Elocution.

WILLIAM JOHN KEARNEY, B. M. E.,
Laboratory Assistant in Experimental Engineering.

OTHER OFFICERS.

MISS LUCY BERRY BLACKBURN,
Monitress.

JAMES GARRARD WHITE,
Business Manager.

JOSEPH WILLIAM PRYOR, M. D.,
Surgeon of the Battalion.

MISS MARY HODGES,
Stenographer.

VICTOR EMANUEL MUNCY,
Secretary of the Faculty.

EXPERIMENT STATION.

MECHANICAL HALL.

THE KENTUCKY EXPERIMENT STATION.

BOARD OF CONTROL.

HON. A. P. GOODING, *Chairman*.....Mason County.
HON. HART BOSWELL.....Fayette County.
JOHN B. KENNEDY, ESQ.....Bourbon County.
PRESIDENT JAMES K. PATTERSON, *Ex-officio*.....Lexington.
DIRECTOR M. A. SCOVELL, *Ex-officio*.....Lexington.

OFFICERS OF THE STATION.

MELVILLE AMASA SCOVELL,
Director.

ALFRED MEREDITH PETER,
First Chemist.

HENRY ERNEST CURTIS,
Second Chemist.

HARRISON GARMAN,
Entomologist and Botanist.

CLARENCE WENTWORTH MATHEWS,
Horticulturist.

VICTOR EMANUEL MUNCY,
Meteorologist.

MISS ALICE MCDOWELL SHELBY,
Stenographer.

DR. RICHARD JAMES SPURR,
Superintendent of Field Experiments.

JOSEPH NELSON HARPER,
Dairyman.

DEPARTMENTS.

The studies of the State College are distributed into fifteen Departments, each in charge of a responsible head, the heads constituting the Faculty. Chronologically the Departments are:

I. History, Political Economy, and Metaphysics.
II. Botany, Horticulture, and Agriculture.
III. The English Language and Literature.
IV. Military Science.
V. Chemistry.
VI. Mathematics and Astronomy.
VII. Modern Languages.
VIII. Greek and Latin.
IX. The Academy.
X. Pedagogy, or the Normal School.
XI. Civil Engineering.
XII. Mechanical Engineering.
XIII. Anatomy and Physiology.
XIV. Geology and Zoölogy.
XV. Physics.

COURSES OF STUDY.

I. DEPARTMENT OF HISTORY, POLITICAL ECONOMY, AND METAPHYSICS.

PRESIDENT PATTERSON.

The course of instruction in this Department includes an outline of Ancient, Mediæval, and Modern History. Attention is given to the various forms of government, their characteristic features and points of difference, to the progress of civilization, the origin and development of parliamentary government, the rights and duties of citizenship.

In the period covered, Modern History and the History of England and the United States occupy the most prominent place.

Walker's Science of Wealth is made the basis of instruction in Political Economy. Students are, however, made familiar with the principles upon which rest the rival doctrines of Protection and Free Trade.

The study of Mental and Moral Philosophy extends through one year. Sir William Hamilton is used as the basis of instruction in Metaphysics, and Janet in Morals. Concurrently with recitations from these authorities, the pupil is made familiar with the principles upon which rival systems of philosophy and morals are based and the arguments by which they are maintained. Ancient and modern systems are thus brought under review, and the necessary data furnished upon which to ground intelligent opinions.

II. DEPARTMENT OF BOTANY, HORTICULTURE, AND AGRICULTURE.

PROFESSOR MATHEWS.

This Department occupies rooms for class instruction on the basement floor of the Experiment Station building. The main room or general laboratory is suitably equipped with the customary furnishings of laboratory tables, water and gas fixtures, charts, etc. The further equipment both for elementary work and for the use of advanced students is new and of the best

quality, and includes an ample supply of compound and dissecting microscopes for the individual use of each student, several first-class microtomes, ovens and sterilizing apparatus, together with delicate balances and other apparatus for the study of plant physiology.

Among other facilities for study, the Department possesses a greenhouse (20 x 50 feet), giving an opportunity for the continuous study of living plants throughout the winter months and for experimental work in plant physiology.

The herbarium contains a nearly complete representation of the flora of Kentucky, with a considerable number of foreign exchanges. It was primarily due to the efforts of Dr. Robert Peter, who made a quite extensive collection of Kentucky plants about sixty years ago, and also exchanged specimens with the prominent botanists of that day, thus forming the nucleus of the present collection, which therefore possesses considerable historical value. Constant additions are now being made to the herbarium by collecting excursions over the State and by exchanges with other institutions.

The Department Library is receiving constant accessions of carefully selected books, and already contains the most important botanical and horticultural works of reference, and these, as well as the best current literature upon these subjects, are freely available to students during college hours.

For the study of horticulture and agriculture, many of the appliances already mentioned are again utilized, and in addition the very complete equipment of the Experiment Station incidentally affords superior opportunities for the instruction of students.

The Horticultural Department of the Station (which is also under the charge of the Professor of Botany and Horticulture) has an excellent forcing and greenhouse plant upon the college grounds, consisting of four glass houses of the most approved methods of construction, containing 4,000 feet of glass, in addition to hot-beds and cold frames outside. These houses are run to their full capacity through the winter months in the conduct of experiments upon the culture of lettuce, radishes, tomatoes, cauliflower, and other vegetables, and upon the various methods of plant propagation.

The extensive list of varieties of vegetables and fruits growing upon the Experiment Farm gives an opportunity for a comparative study of varieties rarely if ever found upon the ordinary farm.

The College campus contains a large number of ornamental trees and shrubs, and these with numerous varieties of annual and perennial flowering plants give the pupil a good opportunity to study ornamental horticulture.

In the distinctively agricultural studies the operations of the farm department of the Experiment Station furnish an excellent opportunity for the study of the effects of various fertilizers, varieties of wheat, corn, and other field crops, and the many problems of dairying.

In order to give special attention to dairy experiments a building has recently been erected upon the Station Farm, and fully equipped with the most modern appliances for the care of milk and the manufacture of butter and cheese.

All these facilities for the experiment work of the Station, while primarily designed for that purpose, can not fail to be of the greatest value as object lessons in connection with the studies of this department.

The general subjects of study comprised within the scope of this department are subdivided as follows:

I. INTRODUCTORY BOTANY.

This study is required of all Sophomores in the General Scientific, Agricultural, Biological, Chemical, and Normal courses. Beginning in September, the subject is pursued through the entire college year, and for all students is a prerequisite for admission to subsequent courses in botany.

The work of the year comprises a general survey of the plant world, and is designed to give the student who goes no further with the subject, a comprehensive view of the entire vegetable kingdom, while for the student who will continue his botanical study, it is intended to afford a substantial basis for more exhaustive special studies.

The laboratory method is the form of instruction principally used, and from the very beginning of his work the pupil is directed to a study of plants themselves, using the text-book as an

aid to correct his mistakes and to enlarge his field of view. The student is early instructed in the use of the compound and dissecting microscopes, and with their aid he begins in the Fall term the study of the vegetable cell and its various modifications, together with types of the lower forms of plant life, proceeding from the simpler to the more complex, until at the beginning of the second half year the ferns are reached. From this time until the close of the year the student is given practice in the description and determination of species of ferns, grasses, and other flowering plants, in addition to a study of their structures.

In the course of the year class excursions are arranged to the Kentucky River and other points of botanical interest—sometimes in connection with the other departments of natural history,—for the purpose of collecting and studying the interesting flora of these various localities.

Text-books: Bessey's Botany in the first, and Gray's Field, Forest, and Garden Botany in the second term.

II. HISTOLOGY, AND (III.) PLANT PHYSIOLOGY.

These two studies are designed to form a continuous course running through the Junior year, and are required of all Juniors in the Agricultural and Biological courses.

In Histology the student is given instruction and training in the methods of preparing vegetable tissues for microscopic study, and is encouraged to make a large number of permanent slides, which he can retain for his own future use.

Text-book: Dudley and Thomas' Manual of Plant Histology.

The study of the tissues and organs of the plant under the microscope gives the pupil a preliminary knowledge which is important for the proper understanding of the functions of these plant parts, or Plant Physiology, which immediately follows Histology. This requires two afternoons of each week in the Spring term for laboratory experiments, in which the pupil follows McDougal's Manual of Plant Physiology, and is expected in addition to do considerable collateral reading.

In both of these studies constant references are made to such standard works as Strasburger's Practical Botany; the text-books on Plant Physiology of Goodale, Sachs, and Vines; De Bary's Comparative Anatomy of the Phanerogams and Ferns; Behren's Guide to the Microscope in Botany, etc.

IV. CRYPTOGAMIC BOTANY.

Required of Juniors in the Biological course. Like the preceding subject, this study is arranged primarily as a laboratory course. It embraces the study of representatives, so far as practicable, of each of the lower classes of plants.

Works of reference: Bennett and Murray's Cryptogamic Botany; De Bary's Fungi, Mycetozoa, and Bacteria; Goebel's Outlines of Classification and Special Morphology; the Manuals of Bacteriology of Sternberg and others; Wolle's Algae, etc.; Lesquereux and James' Mosses; Underwood's Ferns and their Allies; Atkinson's Biology of Ferns, etc.

V. ECONOMIC BOTANY.

This study is required of Seniors in the Agricultural Course, and is for the first half of the term parallel in part with the preceding study, being concerned with injurious Fungi and methods of combating them. The remainder of the term is occupied with the study of the botany of cultivated plants, particular attention being given to the grasses.

VI. SPECIAL ADVANCED BOTANY.

Provision is here made for Seniors in the Biological Course to pursue some advanced line of study, assigned with reference to their individual tastes and requirements, and is intended to be a continuation of some special subject commenced in the earlier part of their course.

VII. HORTICULTURE.

Required in the Agricultural Course. The work in this subject begins in January of the Junior year and extends through two terms. The time allotted to the subject is divided between lectures, recitations, and actual practice in horticultural operations, special prominence being given to the latter feature of the course.

In the lectures are discussed the principles underlying horticultural practices; the propagation of plants; the physiological considerations upon which are based the operations of budding, grafting, pruning, training, etc.; greenhouses, their construction, heating, and management; and vegetable, fruit, and landscape gardening. In connection with the lectures the work in the greenhouses and upon the college and experimental grounds is

freely used for illustrative purposes, and occasional visits are made to the greenhouses, nurseries, market and fruit gardens, and the canning factory, all of which are well represented in or near Lexington.

In the practical part of his studies the pupil is not only taught the best methods of doing his work, but is encouraged to seek for the principles that make such methods best. He performs for himself the various operations of seed testing and seed sowing; propagation by cutting, layering, division, etc.; budding, grafting, crossing, hybridizing, and other forms of horticultural practice.

In order to make this work of the highest value to the student, he is required throughout the course to make accurate observations and careful notes upon his progress, and upon the results of all these processes.

VIII. GENERAL AGRICULTURE.

Required of Juniors and Seniors in the Agricultural Course.

The subject is taught by means of text-books and lectures, and illustrated by the work of the farm, garden, and greenhouse, all of which are fully equipped. The first term is devoted to soils, their origin, character, and cultivation; draining and irrigation, fertilizers, farm economy, etc. The second term is occupied with the subject of breeds of stock, the principles of breeding and feeding, and milk, as to its production, and the manufacture of the various dairy products.

For the study of stock-breeding and kindred subjects the location of the College is exceptionally favorable, being situated in the center of the far-famed Bluegrass region of Kentucky, with its numerous herds of high-bred cattle and horses. In the entire work of this course material aid is rendered the student by the important experiments of the State Experiment Station, which are at all times available for observation and study.

THE COURSE IN AGRICULTURE.

The distinctive feature of this course is the instruction in those branches of study which bear the most direct and practical relation to agricultural pursuits. It includes as subjects of primary importance the study of general and agricultural chemistry, general zoölogy and entomology, botany, horticulture,

geology, general agriculture, veterinary science, wood-work, and forging.

In addition to these subjects, the student devotes considerable time to the work of other Departments, including a year each in English and mathematics, courses in drawing, French and German, physiology, physics, and political economy.

THE SHORT (WINTER) COURSE IN AGRICULTURE.

In this course an opportunity has recently been provided for young men, who desire to excel in their chosen occupation of farming, to secure an elementary knowledge of those scientific principles which lie at the foundation of all success in agriculture. In order that such a course of study may not interfere with the work of the busy season upon Kentucky farms, it will begin in January, immediately after the Christmas recess, and will continue for eight weeks. Its aim is to give to ambitious young farmers accurate and practical information on such important topics as manures and commercial fertilizers; agricultural chemistry; soils, and their origin; plant life on the farm; vegetable and fruit growing; diseases of plants; injurious insects; the principles of veterinary science, and the treatment of the simpler ailments of farm animals; care and feeding of live stock; the dairy cow; milk, and the manufacture of butter and cheese.

In such subjects as will permit it actual practice will be given in the manipulation of material and appliances of study, such as the care of milk; practical butter making; spraying plants for injurious insects and diseases; and, in horticulture, the practices of seed sowing, pruning and training, grafting, etc.

This course affords to young men on farms, whose time and means are limited, an opportunity to utilize the winter months to the highest possible advantage by fitting themselves more thoroughly for their life-work.

No examinations are required for admission to this course, the only requirements being that the applicant must be of good moral character, must have had a good common school education, and be at least sixteen years of age, or preferably somewhat older, to fully profit by this course.

To residents of Kentucky instruction in this course will be free, the only expenses being the cost of a few books and other

necessary incidentals, together with board and room and other personal expenses. Board and a room can be secured at prices varying from three to five dollars per week, so that the total expenses of a student during his entire eight weeks' stay need not exceed from thirty-five to fifty dollars.

Further information regarding this course may be obtained by addressing President Patterson or Professor Mathews at the College.

III. DEPARTMENT OF ENGLISH.

PROFESSOR SHACKLEFORD.

FRESHMAN CLASS.

First Term—English Prose and Poetry; interpretations of masterpieces of English Prose and Poetry; written essays, read in class and corrected.

Second Term—Studies in English Literature.

Each pupil is required to commit to memory and recite in class selections from the great English poets and prose writers, including parts of Shakespeare's Julius Cæsar and the Merchant of Venice; Bacon's Essays on Studies and Friendship; Milton's L'Allegro and Il Penseroso and extracts from the Areopagitica; Bunyan's Golden City; Dryden's Alexander's Feast; Gray's Elegy; parts of Goldsmith's Deserted Village; passages from Burke's speech on the Spirit of Liberty in the American Colonies; Burns' Cotter's Saturday Night; Wordsworth's Intimations of Immortality; Coleridge's Hymn to Mont Blanc; the closing passages of Webster's speech in reply to Hayne; Byron's Prisoner of Chillon; Shelly's Ode to the Skylark; Bryant's Thanatopsis; Emerson's Essay on Compensation; Longfellow's Keramos; Holmes' Deacon's Masterpiece; Tennyson's Ulysses; De Finibus, by Thackeray; The Vision of Sir Launfal, by Lowell.

Text-book: Swinton's Studies in English Literature.

SOPHOMORE CLASS.

First Term—History of English Literature; class reading from Bacon, Burke, Milton, Shakespeare, and other great English writers.

Text-books: Pancoast's Representative English Literature and Hudson's Annotated English Classics.

Second Term—Advanced Rhetoric; lectures on the Elements of Criticism.

Text-books: Genung's Rhetoric; Minto's Manual of English Prose Literature.

JUNIOR CLASS.

First Term—The Science of Logic; lectures on Pure Logic, in which Stoicheiology and Methodology are explained and illustrated; explanations and illustrations of the Analytics of Aristotle and the New Analytic of Sir Wm. Hamilton; exercises in Figure, Mood, and Reduction; lectures on Fallacies and the Sources of Error; lectures on Inductive and Analogical Reasoning; lectures on Evidence.

Text-book: Jevons' Logic.

Second Term—Anglo-Saxon and Early English.

Text-book: Corson's Anglo-Saxon and Early English.

IV. DEPARTMENT OF MILITARY SCIENCE.

CAPTAIN SWIGERT.

Instruction in this Department is both practical and theoretical.

The Practical course embraces the U. S. Drill Regulation for Infantry, including the schools of the soldier, company, and battalion in close and extended order; ceremonies; so much of the Artillery Drill Regulations as pertains to the manual of the piece and mechanical maneuvers; signaling with flag and heliograph; guard duty and minor tactics.

Theoretical instruction embraces recitations in U. S. Drill Regulations for Infantry and Artillery; instruction in the preparation of reports and returns pertaining to a company; lectures on organization and administration of the United States Army, and general principles governing in the Art of War.

All students are required to take this course, and proficiency in it is as requisite for graduation as in any other Department.

Students must provide themselves with the regulation uniform of cadet gray cloth, which can be purchased for about fifteen dollars. No other outer dress, excepting an overcoat, shall be worn on any occasion. From this rule students may, however, be exempt when laboring in the field or in the shops.

V. DEPARTMENT OF CHEMISTRY.

PROFESSOR KASTLE.

The Chemical Department dates from the establishment of the institution. For many years it was under the direction of Dr. Robert Peter, who by his labors in analytical chemistry has done more probably than any other man to develop the abundant mineral resources of the State. The Department remained in the hands of Dr. Peter until 1887, when he resigned. Dr. E. A. Von Schweinitz was then appointed to the vacancy. He held the position during the collegiate year 1887–1888, whereupon the present incumbent was appointed. For many years the chemical laboratories and lecture-room occupied the eastern part of the main College building. In September, 1889, however, the Experiment Station building having been completed, the apparatus and equipment were moved from the laboratories in the main building to more suitable and beautiful rooms on the second floor of the Experiment Station building. The lecture room and the laboratories, qualitative and quantitative, of the Chemical Department are exceedingly well adapted to their purpose, and are among the best constructed and most handsomely furnished of the rooms in the College. The qualitative laboratory contains three very large working tables, each of which can easily accommodate ten students. The quantitative laboratory is also well equipped with tables, hoods, water, gas, electricity, etc., and has desk room for at least fourteen students in all. The lecture-room is well lighted and heated and beautifully furnished and commodious, having a seating capacity of about seventy-five. Besides the laboratories and lecture-room, there are several other small rooms on the same floor set aside for the use of the Chemical Department:—an instructor's office, a balance-room and a store-room.

APPARATUS.

The Department is well supplied with the commoner forms of chemical apparatus and chemicals. In addition to these it owns several of the more expensive pieces of apparatus, such as several exceedingly delicate balances for analytical work; a grand model Bunsen & Kirchoff spectroscope; platinum appara-

tus; a complete outfit for electro-plating; vapor density apparatus; a glass model ice-machine, etc. These of course will be added to from time to time as the needs of the Department demand and the resources of the institution permit; as it is now, however, the equipment is such as to readily enable the student to obtain at first hand a good working knowledge of chemical science.

Course in Chemistry.

The Chemical Course has lately been established with the view to preparing the student for life-work in the Science of Chemistry, and also with the view to fitting him for the study of medicine and kindred professions. To the accomplishment of this purpose the following course of study, extending over four years, has been adopted:

STUDIES REQUIRED.

The first year is devoted to the study of English, Mathematics, Algebra, Plane Geometery and Trigonometry, French, and Physiology.

The second year to Mathematics, Solid and Analytical Geometry, German, Chemistry, Botany, and Physics.

The third year to Chemistry, theoretical and laboratory practice, English, Geology, French and German, and Calculus.

The fourth year to Chemistry—advanced general reading, laboratory practice and original investigation, Economic Geology, History and Political Economy, Mental Philosophy, Logic, and Zoölogy.

THE TRAINING IN CHEMISTRY PROPER.

The study in Chemistry proper, as outlined in the above, is sufficient in its scope to bring the student in close contact with the great fundamental truths of the Science, and to make him enthusiastic and capable in his profession.

The course in General Chemistry, extending through the second five months of the second year, consists of lectures, laboratory work, and recitations five times weekly on the non-metals and their compounds and the simpler laws of medical change. The lectures are abundantly illustrated by suitable and instructive experiments; the laboratory work is carefully directed,

and the student receives every possible encouragement to do excellent work.

In the third year the study of Chemistry is resumed with laboratory work and Theoretical Chemistry. The study of Theoretical Chemistry, consisting of lectures, recitations, and readings five times weekly during the first half year, is intended to acquaint the student with the greatest generalizations and theories of modern chemistry and their historical development. In this connection about fifty lectures are delivered annually upon the following general topics: Ten upon the Atomic Theory, its development, and the methods at present used in the determination of atomic weights; fifteen upon the Compounds of Carbon, Isomerism and Structural Formulæ; ten upon the History of Chemistry; five upon the Periodic Law; five upon the Spectroscope, Spectrum Analysis, and the Chemistry of the Heavenly Bodies; five upon the more important current chemical investigations.

By way of supplementing the work of the lecturer, students pursuing this course will be required to do a certain, rather liberal, amount of general reading upon the matter treated of in the lectures or upon such other topics as may be assigned by the instructor. For this purpose the nucleus of a chemical library has been formed, which may be freely consulted by any or all students in the College, and the leading chemical journals of this and other countries will there be kept on file. The broadening influences of such a course can scarcely be overestimated, and students who complete it satisfactorily will find themselves, in some measure at least, abreast of the highest and best chemical thought of our time.

The laboratory work during the first term of the third year is devoted to the study of the metals, and their more important compounds, and qualitative analysis. This work is intended to supplement the work of the first year upon the non-metals, and also to familiarize the student more fully with the commoner methods of chemical manipulation and practice. The laboratory work of the first term will be followed up during the second with laboratory work in quantitative analysis, by means of which the student learns the value of precise and accurate work, and the constancy and definite character of chemical reactions. The chemical work of the last year will consist of such special work

as the student may elect to pursue, together with the preparation of a thesis embodying the results of this special work. The object of such an arrangement is to perfect him in that particular branch of the science for which he shows a liking or a particular talent. In this connection it may be well to state that facilities are offered for special work along the following lines: Pure Chemistry, Organic Chemistry, Agricultural Chemistry, general analytical work, and special analytical work on fertilizers, iron and steel and fuels.

CHEMISTRY REQUIRED IN OTHER COURSES.

Instruction in chemistry in other courses of study, such as the Scientific, Classical, etc., is designed to meet their special needs in this direction.

In the Classical Course the study of this science extends over five months, five times weekly, and is intended simply to introduce the student to the subject by way of general education.

In the Scientific Course the work extends over ten months. A portion of this time is devoted to the study of the metals and qualitative analysis by means of laboratory work. In the course of Mechanical Engineering the instruction is adapted as completely as possible to the needs of the students in this department. Instruction in chemistry in this course extends over a period of ten months; five of which are devoted to the study of the non-metals and their compounds; five to the chemistry of the metals with special reference to the properties which render them useful to the mechanical engineer, and also with reference to their mode of occurrence in nature and the methods of obtaining them from the ores.

For students in Civil Engineering a course in Elementary Chemistry has been provided, extending over five months.

For the benefit of students of Agriculture a special course in Agricultural Chemistry has been arranged, the general aim of which is to acquaint the student with the chemistry of those elements which enter into the composition of plants, and which are essential to their life and growth. A study of the composition of the soil, air, and water, and their several relations to the plant as sources of plant food, forms a large and important part of this work. Also the chemistry of tillage, irrigation, and rota-

tion of crops, and the composition and value of commercial fertilizers and manures.

The instruction in Chemistry is also adapted as fully as possible to the needs of students in Biology. Instruction in this branch extends over ten months, five times weekly. The first half of the time is devoted to the study of Elementary Chemistry; this is followed by laboratory work in the afternoon upon those elements which are regarded as essential to living things, animal and vegetable.

VI. DEPARTMENT OF MATHEMATICS AND ASTRONOMY.

PROFESSOR WHITE.

A thorough knowledge of Arithmetic and of Algebra through quadratic equations, as presented in Wentworth's Higher Algebra, is required for admission to the Freshman class.

FRESHMAN YEAR.

First Term—Wentworth's Geometry, Books I–V.

Second Term—Wentworth's Higher Algebra, Chapters XXII–XXIV; Wentworth's Trigonometry.

SOPHOMORE YEAR.

First Term—Wentworth's Solid Geometry and Conic Sections.

Second Term—Bowser's Analytical Geometry.

JUNIOR YEAR.

Bowser's Differential and Integral Calculus.

Required of students in Civil and Mechanical Engineering.

SENIOR YEAR.

Young's Elements of Astronomy.

In this class the aim is to give to the students a knowledge, as accurate and as extensive as the time will allow, of the phenomena of the heavenly bodies and of their probable condition and history. No effort will be spared to make the study of this branch of science interesting and instructive.

VII. DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR WERNICKE.

1. German.

FIRST SESSION.

First Term—C. Thomas' German Grammar; oral exercises.
Second Term—Grimm's Märchen; Ballads.

SECOND SESSION.

First Term—Hoffman's Historische Erzählungen; Schiller's Maria Stuart; Harris' German Composition.

Second Term—Schiller's Lied von der Glocke; Lessing's Nathan der Weise; an essay on a quotation from Schiller's Glocke.

THIRD SESSION.

(*Optional*)—Dippold's Scientific German Reader; conversational exercises; Bernhard's Literaturgeschichte.

2. French.

FIRST SESSION.

First Term—Whitney's Grammar, Part I, to the irregular verbs; Whitney's Introductory French Reader, Part I.

Second Term—Le Conscrit de 1813; irregular verbs.

SECOND SESSION.

First Term—Whitney's Grammar, Part II; Luquiens' Places and Peoples; some of Lafontaine's Fables committed to memory.

Second Term—Syntax continued; Scribe, Bertrand et Raton, Verre d'eau; Corneille's Cid; Molière's Avare; Racine's Athalie, etc.

THIRD SESSION.

(*Optional*)—Duval, Histoire de la Litérature Française; selections from modern French literature.

3. Spanish.

First Term—Edgren's Spanish Grammar; Eco de Madrid.
Second Term—Knapp's Spanish Readings.

4. Italian.

First Term—Edgren's Grammar, Pellico's Le Mie Prigioni.
Second Term—Edgren's Composition; Goldoni's Comedies.

VIII. DEPARTMENT OF GREEK AND LATIN.

PROFESSOR NEVILLE.

1. Latin.

FIRST SESSION.

Bingham's Latin Grammar—the study involving a daily exercise in inflection and in translation from and into Latin on the blackboard; Gradatim (194 Latin stories), or Viri Romæ.

SECOND SESSION.

Five books of Cæsar, or two books of Cæsar and twelve lives of Nepos; six orations of Cicero; Daniell's New Latin Composition; Bennett's Grammar; Sallust's Catiline or Cicero de Senectute.

THIRD SESSION.

Livy, Books I. and XXI.; six books of Virgil; a play of Terence, or thirty letters of Pliny; the first forty exercises of Arnold's Latin Prose Composition.

FOURTH SESSION.

Horace, except a part of the Epodes and Satires; the second forty exercises of Arnold; Tacitus, Germania and Agricola; the I., III., VII., VIII., and X. Satires of Juvenal, or, instead of the VII. and VIII., an essay of Seneca; Wilkins' Sketch of Latin Literature.

2. Greek.

FIRST SESSION.

White's Beginner's Greek Book, with a daily exercise in inflection and in translation from and into Greek on the blackboard.

SECOND SESSION.

Five books of the Anabasis; six of the Iliad; exercises in Greek syntax.

THIRD SESSION.

Keep's Selections from Herodotus; Plato's Apology and Crito; six orations of Demosthenes; dialogues of Lucian.

FOURTH SESSION.

Two books of Thucydides; three Greek dramas (Prometheus, Medea, Œdipus Rex); Jebb's Sketch of Greek Literature.

IX. THE ACADEMY.

This will be described after the Collegiate Departments.

X. THE NORMAL SCHOOL.

PROFESSOR ROARK.

Although organized as a Department of the College co-ordinate with the other departments, yet the Department of Pedagogy is more properly a school in itself, made so by the necessities of the Public School system of the State. Therefore, in addition to offering full work in Pedagogy (Educational Psychology and its applications in School Economy and Educational Methods), this Department also provides academic instruction for teachers who desire to fit themselves for higher grades of work. In administering the Department, the real needs and limitations of the average Public School teacher are kept constantly in view, and the elevation of the common schools of the State is the basic principle of the work.

The teacher must be possessed of three things in addition to an upright and sterling character and a healthy body. These three things are: (1) An adequate knowledge of what he proposes to teach; (2) skill in teaching—knowledge of how to teach; (3) some broad and liberal culture wherewith to illuminate his work and increase its value. These three things it is the business of the Teacher's Training School to give.

1. *An adequate knowledge of the branches to be taught.*—The giving of this knowledge is academic work primarily. But this academic instruction should be given with the fact constantly in view that "The student will teach as he is taught, rather than as he is taught to teach." The instruction in Arithmetic, Physiology, Grammar, etc., is designed to illustrate to the teacher-pupils in the various classes the latest and best methods of teaching these subjects.

2. *Skill in teaching—the knowledge how to teach.*—This can be acquired best by successful practice, but there is a science as well as an art of teaching. Teaching must not be wholly empirical. There are fundamental principles upon which all true teaching rests, and the purpose here is to fix these principles in

the minds of the pupils. It is the carrying out of these principles, their successful and practical application, that lifts the work of the teacher to the dignity of a profession. It is the direct inculcation of these principles and the practical drill in their application that distinguish the Teacher's Training School from all other schools. The Teacher's Training School should work in the faith that teaching is the highest profession, and the atmosphere of such a school should be filled with the professional spirit.

Since the principles of the science of education rest on the activities and processes of the growing mind, special attention is given to Educational Psychology. A study of this subject is followed by a thorough drill in School Management and the most rational and effective Educational Methods. The principles of management and methods are constantly presented in their relations to the principles of Psychology. Finally, the student is introduced to the history of his profession abroad and at home. The course in Pedagogy proper, then, consists of Educational Psychology, Management in Education, Method in Education, and the History of Education.

3. *Some broad and liberal culture.*—He who knows only the subjects he has to teach, and something of how to teach them, is not yet a teacher. He must know as much more as he can; must have some knowledge of subjects higher than the branches he will be called on to teach, and different from them. Human knowledge is so interrelated that otherwise he can not have the copiousness of illustration necessary to make the simplest and commonest facts as clear as they should be. The *relations* of facts must be taught—hence the growing need of liberal culture, a widened horizon for the teacher.

The courses offered in this department are believed to be such as will meet the requirements above set forth, and also satisfy the practical needs of the educational system of the State.

COURSES IN PEDAGOGY.

The *Professional Course* leading to the degree of B. Ped. (Bachelor of Pedagogy) is intended to cultivate the professional spirit, to give a general education, and to fully equip those who complete it for teaching successfully in any grade of public school, or in any academy or college.

The *State Diploma Course* is arranged to enable those teachers who have the age (24 years), and experience (2 years in this State), required by the school law, and who already hold a State certificate, or are otherwise properly qualified for taking the course, to prepare by one year's work to pass successfully the examination for State Diploma.

The *State Certificate Course* is open to those who have the legal qualifications of age (21 years), and experience (2 years), and who hold first class, or high grade second class, county certificates, or are otherwise prepared to undertake the work of this course. The aim is to fit such students to take successfully the examination for State certificate. The time required is five months, *beginning in mid-winter*.

The *County Certificate Course* is designed to prepare teachers for the county schools of the State. Preparation for properly passing the county examination may be made in one year or in five months, according to the previous preparation of the matriculate. Since by far the larger number of those who take this course enter it after the Holidays, the second term is divided into two terms of ten weeks each, and thus teachers can review all the common branches during the second half year.

It will be seen upon reference to the schedule, page 62, that *Drill Work in Forensics, i. e.*, in essay writing, speaking and debating, is an important feature of the Normal School. Ability to express fluently and correctly is of the utmost value to the teacher, and can be gained only by constant practice. The Forensic Drills will occur once a week, with special exercises once or twice each term.

The *Pedagogy Drill* will occur daily during the last quarter of each year, and is intended to give valuable training in the Science of Teaching.

The *Preparatory Course* is provided for in the Academy, and fits the student to enter the full Professional Course of the Normal Department.

Text-books: In the Professional Course the text-books are those used in the same branches in the other four years' courses of the College. In the work in Pedagogy the books used are Roark's Psychology in Education, Brooks' Normal Methods, White's and Baldwin's School Management, and Painter's and Williams' History of Education. In the State

Diploma and State Certificate courses, besides these books, Kellogg's English Literature also is used. In the County Certificate Course the books used are Ray's Arithmetics, Wentworth's Higher Algebra, Peterman's Civil Government, Chittenden's Elements of English Composition, Butler's Geography, Holbrook's Complete Grammar, Eggleston's History of the United States, Kinkead's History of Kentucky, Martin's Human Body (smaller edition), and Roberts' Rules of Order.

APPOINTMENTS.

Each legislative district of the State is entitled to send to the Normal School every year four properly appointed students, of either sex. Appointments are made by the County Superintendents (see page 92, Section 15, School Law of 1894,) between the first day of July and the thirty-first day of December. Appointments should be certified to the President of the State College as soon as they are made. Appointees secure all the advantages indicated on page 92. They do *not* receive mileage unless they remain in school during the full collegiate year.

Appointments to the Normal School are good for *one* year. Those who are ready to enter the Freshman Class of the full four years' Professional Course should see that their appointments are made for the *College* and not for the Normal School. Appointments made for that course as a college course are good for four years.

CALENDAR.

The First Term opens September 9, 1897.
The Second Term opens January 24, 1898.
The First Review Term of 10 weeks opens January 24, 1898.
The Second Review Term of 10 weeks opens March 28, 1898.

Students should enter as early in the term as possible.

XI. DEPARTMENT OF CIVIL ENGINEERING.

PROFESSOR NELSON.

The course in Civil Engineering is planned so as to acquaint the students with those subjects the knowledge of which is necessary to enable the civil engineer to develop himself into a skilled practitioner of his profession in any of its several branches. So far as is possible, the importance of each subject taught is illustrated by its application to some work similar to that which is

met with in actual practice. An effort is made to render the course valuable not only for its professional uses, but also for an educational purpose, so that the graduates of the Department of Civil Engineering may be prepared for work other than that in their profession. Therefore, while the student is learning each subject both theoretically and practically, the training of his mind as well as the needs of his profession is kept in view. In addition to the purely technical matters included in the course, provision is made for the study of English, History, and Political Economy.

I. FRESHMAN YEAR.

During the first year, the student is occupied largely with subjects that are preparatory to the technical branches of the course. English Literature and the elements of Algebra, Plane Geometry, and Trigonometry are completed. In the latter half of this year Plane Surveying is begun, and is taught chiefly by work in the field. The results of this field work are treated in the drawing-room as may be necessary. The early practical work consists of measuring areas, dividing land, triangulation to ascertain distances both horizontal and vertical, the careful measurement of base lines and the use of stadia, plane table, transit, compass, level, rods, chains, and tapes. The adjustments of the instruments are practiced, so that the student who completes successfully the work of this year, has mastered the simpler problems of surveying and other field work sufficiently to be prepared for employment as a leveler or transit-man in a field-corps, and as an assistant in making calculations which depend on the use of trigonometrical functions and formulæ. Thacher's Slide Rule and the simpler forms of such aids to rapid computations are used whenever they facilitate work.

Students in other departments than that of Civil Engineering can enter the class in surveying when prepared to do so, since such work is done chiefly in the afternoon. Thus they can learn to handle those problems in Plane Surveying which relate to the dimensions, area, and division of land.

Throughout this year, Draughting is practiced for the purpose of mastering the use of the instruments and of learning the art of accurate and skillful drawing and neat lettering. Some work is done in projectional and perspective drawing, both in plain

lines and in colors. Field work is platted. Studies are made of standard structural drawings, and some simple structures are designed.

Text-books: Merriman and Brooks' Hand-Book for Surveyors, with references to the texts of Davies, Gillespie, Hodgman, and to Webb's Engineering Instruments; Mahan's Drawing.

II. SOPHOMORE YEAR.

The Mathematical Course is pursued through Analytical Geometry. The subjects of Chemistry and Physics are studied. Descriptive Geometry is taught so as to train the student to handle problems in projections, intersections, tangencies, and developments of surfaces. Practical application is made to work in shades, shadows, and perspective drawings.

In Railway Location attention is paid to the proper location, construction, and equipment of Railways. Actual Surveys are made, and the necessary maps, profiles, and cross-sections are prepared by the students. The quantities of excavation and embankment are then calculated, so that a knowledge of such practical work is acquired. The subject of Highway Construction is studied, embracing especially the pavements and streets of cities.

The study of structures is begun, and the graphical method of ascertaining stresses in the members of roof-trusses and simple bridges is practiced. Structures of this kind are designed, and the dimensions of their details are determined.

In the field the use of the various instruments is practiced. In the drawing-room standard designs of structures of railway appliances are studied, and original designs of these are made.

The completion of this year's course prepares a student to act as assistant in the field-work of railway location and construction, and as an efficient draughtsman in office-work. It acquaints him with the beginnings of structural designing and dimensioning, and enables him to handle intelligently problems in the stability of roofs and bridges.

Text-books: Searles' Field Book; Greene's Roof Trusses; and references to other authorities.

III. JUNIOR YEAR.

The Calculus and Spherical Trigonometry are studied. The economics of railway location are examined. Attention is paid to the subjects of yards, stations, signals, brakes, etc., and to the administration of the several departments of a railway. The yards in Lexington offer an excellent opportunity for students to observe the practical use of appliances. The graphical method of making time-cards is illustrated with the cognate matter of train rules and train dispatching.

The Theory of Mechanics is studied analytically after the methods of the Calculus. In Practical or Applied Mechanics the strength of materials is discussed theoretically, and practical illustrations are made by the use of the fine testing machines in the Mechanical Laboratory. Here the students learn to ascertain for themselves the proper constants for the various formulæ, and are taught the principles of inspection.

Electricity and Magnetism occupy the student during a part of the second half of the year, so that he may get a knowledge of questions relating to the proper construction and handling of electric railways.

Advanced Surveying, and methods of finding latitude, longitude, time, and azimuth are included in this year's work, and in this connection the elements of Spherical Trigonometry and their application to Practical Astronomy are studied.

The subject of the strength and stability of structures forms a large part of this year's course, and is studied both analytically and graphically, and the results are applied especially to the designing of bridges and arches.

Field-work is practiced, and work in drawing-room includes the preparation of designs for structures and the making of topographical maps, and the study of the various map projections.

In Masonry and Stereotomy the properties of materials used in stone structures are discussed, with especial attention to cements. Students use the cement-testing machine in this connection. The stability of walls and arches is studied. The method of shaping stones for such structures and of laying out such work is taught, with practice in cutting forms in plaster of Paris.

In the Mechanical Laboratory, the students work with the several testing machines, where they study the behavior of specimens of steel, iron, wood, and other substances, under various strains.

Those who complete this year's work are fitted to fill engagements in some of the higher branches of the profession, where they can serve with efficiency as assistants in conducting important surveys, and in the erection of structures both in the field and in the office. They are prepared to inspect material.

Text-books: Patton's Civil Engineering; Johnson's Surveying; Baker's Instruments; Greene's Graphics; Merriman's Mechanics; Bowser's Mechanics; DuBois's Strains in Framed Structures; Bovey's Framed Structures; Baker's Masonry; Lectures on Railways, and references to other authorities with which the library of the Department is supplied.

IV. SENIOR YEAR.

The study of History and Political Economy is pursued during the year under the direction of the President of the College.

Much time is now devoted to the study in detail of bridges and other structures. Plans, specifications, and working drawing of designs by students are prepared, and standard specimens of work of this kind, kindly contributed to the College by the best bridge companies and other builders, are carefully discussed.

The work in the drawing-room is conducted as nearly as possible after the manner followed in well-ordered engineers' offices. The student learns to use the drawing-board as the constant means of reducing his investigations to a practical form.

The subjects of Hydraulic Engineering and Sanitation are studied with a view to their application to the varied and growing demands of municipalities and to the regimen of streams. The principles of hydraulics and the laws of hydrostatics and of the flow of water are taught both theoretically, and so far as possible, practically. Sanitation is studied with reference to the proper disposal of sewage, and to the drainage of cities, and questions affecting the health of the public are examined.

Methods of Geodetic Surveying, with the application of the principles of least squares, are studied and practiced, including a short examination of the figure of the earth.

Economic Geology in its relation to building materials occupies the student during the latter half of this year.

A short course in Mining is given, including methods of drainage, ventilation, lighting, handling of ore, and construction of entrances.

The student applying for graduation devotes a large part of the latter half of this year to the extended study of some assigned problem in engineering which serves as his thesis.

During the whole of this year the opportunity is given for specialized work in some one or more of the several branches of Civil Engineering, while at the same time the general educational value of the course is cared for, so that the graduates may not only be fitted for skillful work as civil engineers, but also prepared to meet the varied demands made upon educated men.

Text-books: Merriman's Hydraulics; Bovey's Hydraulics; DuBois's Framed Structures; Johnson's Framed Structures; Bovey's Theory of Structures; Gore's Geodesy; Merriman's Least Squares; Callon's Lectures on Mining; Bowie's Hydraulic Mining.

Graduates in this course receive the degree of Bachelor of Civil Engineering (B. C. E.). They are ready for the practice of their profession in the branches elected by them, depending for their ultimate success on their subsequent devotion to and peculiar fitness for their calling, and on their zealous pursuit of the studies begun in this course.

The Department is supplied with transit, level, plane table, solar attachment for transit, compass, chains, rods, and delicately adjusted tapes for accurate base-line measurements. The drawing-room contains the finer and more costly instruments, while each student purchases for his own use the ordinary ones. Perishable drawing-material is supplied by the Department without extra charge. The library of this Department and that of the Department of Mechanical Engineering are combined, and under proper regulations the students have free access to standard text-books and to leading periodicals.

POST-GRADUATE COURSE AND DEGREE.

For the post-graduate degree of Master of Civil Engineering (C. E.) the requirements are indicated on page 63.

XII. DEPARTMENT OF MECHANICAL ENGINEERING.

PROFESSOR ANDERSON.

EQUIPMENT AND FACILITIES.

This department was organized August, 1891, and is now one of the most completely equipped in the College. Mechanical Hall contains a floor area of about 20,000 square feet, is constructed of stone and pressed brick, and is well furnished with modern conveniences for work in Mechanical Engineering. The building contains three recitation rooms, two drawing-rooms, three offices, a wood and pattern shop, two boiler rooms, washroom, tool room, engine room, two machine shops, blacksmith shop, foundry, and two large rooms devoted to experimental engineering. A first-class technical library is at the disposal of all students in Engineering. The equipment of the different rooms is briefly described below:

The drawing-rooms contain drawing-tables, drawing-boards, curves, scales, T-squares, and other special drawing apparatus, to accommodate one hundred students.

The engine-room contains a 10-inch by 24-inch Hamilton-Corliss non-condensing engine, which supplies the motive power for all the work-shops.

The wood-shop contains twenty benches, each with a complete set of wood-working tools, thirteen wood-turning lathes, each with a complete set of turning-chisels, band-sawing machine, universal wood-worker, wood-trimmer, fret saw, double circular saw, and grindstone.

The foundry contains a 30-inch cupola furnace, with a capacity of a ton of metal per hour, a brass furnace, twelve complete sets of moulders' tools, twelve benches; also, ladles, clamps, core-room, core-oven, pattern-rack, and the tools used in a practical foundry.

The blacksmith shop contains a 10-inch steel pressure blower, twelve forges, twelve anvils, three blacksmith vises, an emery grinder, and twelve complete sets of blacksmith tools, for carrying on all kinds of iron and steel forging; a power spring-hammer, designed and built by the students, forms part of the equipment of the blacksmith shop.

The machine-shop contains six lathes, one milling machine, one self-feed drill, one hand-feed drill, one planer, one shaper, one tool-grinder, one dry emery grinder, one wet emery grinder, one universal grinding machine, two sensitive drills, and twelve iron vises and benches for vise work in metal.

The tool-room is equipped with a fine assortment of superior tools for work in iron, steel, brass, and wood, and contains such stock and supplies as may be used in constructions in the mechanical laboratories named above.

The wash-room contains lockers for one hundred students, and is supplied with marble basins.

The boiler-houses contain, respectively, a fifty-one horse-power Babcock and Wilcox water-tube boiler, a Dean Bros.' No. 3 steam-pump, and a fifty-five horse-power tubular boiler, and a Davidson No. 3 steam-pump.

The Experimental Laboratory is the best equipped in the South, and besides being well supplied with steam-engine indicators, planimeters, steam-gauges, pyrometers, reducing motions, scales for measuring, micrometer and vernier calipers, thermometers, calorimeters, sieves, cement samplers, scales for weighing, extensometers, water-meters, etc., it contains a thirty-five horse-power Westinghouse compound engine, a forty horse-power cross compound throttling engine, a twenty-five horse-power automatic cut-off engine, a ten horse-power Corliss engine, a thirty-five horse-power Buffalo automatic cut-off engine, a 10 kilo-watt Crocker-Wheeler dynamo, an 8½ kilo-watt Edison dynamo, a 9 kilo-watt General Electric Company multipolar dynamo, a 3½ kilo-watt electric motor, a ¾ kilo-watt electric motor, a Brackett-cradle dynamometer, several Prony brakes, a 1,000 pound United States Standard cement testing machine, and a 100,000 pound Riehle testing machine. The equipment of the Laboratory is such that any problem relative to Steam and Electrical Engineering may be discussed practically.

COURSE OF STUDY.

The training given in this course, both practical and theoretical, is intended to prepare young men for positions of responsibility and trust in mechanical engineering work. The practical work extends over a period of two years and includes the most

important principles and operations in bench work in wood, wood turning, pattern making, foundry work, iron and steel forging, and hand and machine work in metal.

The theoretical work during the first two years consists of a thorough training in English, Chemistry, Mathematics, Physics, and Drawing; and during the last two years the fundamental principles of boiler, machine, and engine design are taken up. By a careful solution of practical problems the student becomes familiar with the process carried on by the operators and designers of successful machine plants.

The course in Mechanical Engineering involves three separate lines of work:

1. *Mechanical engineering*, the object of which is to give that training necessary to fit men to be operators and designers of steam machinery.

2. *Chemical engineering*, intended especially to give the knowledge requisite for the successful operation of iron and steel plants and the analysis of iron, steel, coals, and refractory substances.

3. *Electrical engineering*, in which the theory, design, building, and operation of dynamos and motors are predominant.

During the Freshman and Sophomore years the work for all students in the Mechanical Engineering Course is identical, but during the Junior and Senior years a student is granted the privilege of electing one of the three lines of work indicated above.

The course of study in Mechanical Engineering, extending over a period of four years, leads to the Degree B. M. E. (Bachelor of Mechanical Engineering). The advanced Degree of Mechanical Engineer may be obtained by resident students in one year after taking the degree of B. M. E. from the State College of Kentucky or any other institution of equal requirements, they having successfully carried on work laid down, passed a satisfactory examination, and presented an acceptable thesis. The advanced degree may also be taken in three years after obtaining the degree of B. M. E., provided the student has been engaged during the period of three years in practical engineering work, passes a satisfactory examination at the College and presents an acceptable thesis.

FRESHMAN YEAR.

Technical Instruction—Twenty-six weeks, three hours per week. (*a*) Recitations, on the forms of wool-working tools, and the cutting and peculiarities of timber. (*b*) Lectures on the operation of the various forms of wood-working machinery. (*c*) Lectures on pattern-making, moulding, and casting.

Mechanical Drawing—Twenty-six weeks, six hours a week, and ten weeks, ten hours a week. This drawing includes free-hand sketches, drawing from copies and models, using parts of machines in the Mechanical Laboratories as models.

Shopwork—Thirty-six weeks, twelve hours a week. (*a*) Bench-work in wood, including exercises in the following operations: Planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenters' tools. (*b*) Wood turning, involving the various principles of lathe-work in wood. (*c*) Pattern-making, which gives the student discipline in the construction of patterns for foundry work. (*d*) Foundry work, including the various operations of moulding, core-making, and the melting of iron and brass.

English—Thirty-six weeks, five hours per week.

Algebra—Twelve weeks, five hours per week.

Geometry—Seventeen weeks, five hours per week.

Trigonometry—Nineteen weeks, five hours per week.

SOPHOMORE YEAR.

Technical Instruction—Sixteen weeks, one hour per week. (*a*) Lectures on the handling of iron and steel in forging, and the methods of tempering and annealing steel. (*b*) Lectures on modern machine-shop practice.

Mechanical Drawing—Sixteen weeks, four hours per week; thirty-six weeks, five hours per week. (*a*) Drawing the parts of machines and complete machines to scale. (*b*) Exercises in tinting and shading.

Shopwork—Thirty-six weeks, twelve hours per week. (*a*) Exercises in iron and steel forging. (*b*) Exercises in vise-work in metal. (*c*) General machine work, including screw-cutting, drilling, planing, and the milling of iron, brass, and steel.

Descriptive Geometry—Nineteen weeks, five hours per week.

Physics—Seventeen weeks, ten hours per week.
Solid Geometry—Seventeen weeks, five hours per week.
Analytical Geometry—Nineteen weeks, five hours per week.
Chemistry—Nineteen weeks, five hours per week.

JUNIOR YEAR.

Kinematics—Seventeen weeks, five hours per week. Under this head are studied the velocity ratios in various motions, construction of gears, cams, quick return motions, straight line motions, epicyclic trains, parallel motions, and the manner of designing trains of mechanism.

Mechanical Drawing—Thirty-six weeks, six hours per week. The work done during the year consists in the design of machines to do certain specific work, and the making of detail drawings of machines used in actual construction in the laboratories.

Metallurgy—Twelve weeks, six hours per week. The above includes the study of fuel and refractory substances, and the process employed in puddling iron and making steel.

Chemical Laboratory—Seventeen weeks, six hours per week.
Analytical Mechanics—Nineteen weeks, five hours per week.
Strength of Materials—Nineteen weeks, five hours per week.
Heat—Seventeen weeks, five hours per week.
Physical Laboratory—Seventeen weeks, six hours per week.
Chemistry—Twenty-four weeks, five hours per week.
Magnetism and Electricity—Nineteen weeks, five hours per week.

SENIOR YEAR.

Thermodynamics—Twenty-six weeks, six hours per week. This work consists of a study of the laws of thermodynamics, thermal capacities, and the application of thermodynamics to the steam-engine.

Steam Boilers—Seventeen weeks, five hours per week. A study of the various commercial steam boilers, consumption of fuel, incrustation, determining the horse-power of boilers, boiler tests, the design of boilers for efficiency and economy, and the methods of power transmission.

Valve Gearing—Seventeen weeks, five hours per week. The study of various forms of standard engine valves and methods of designing.

Mechanical Drawing—Seventeen weeks, ten hours per week. This consists in working out practical designs of boilers and steam-engine valves.

Engine and Machine Designing—Fifteen weeks, five hours per week. A study of the modern methods of designing engines and machines for strength as well as motion.

Experimental Engineering—Fifteen weeks, ten hours per week. Includes a study of the steam-engine indicator, making engine, boiler, belt, and materials for constructing tests.

Political Economy—Fifteen weeks, five hours per week.

Theory and Practice of Photography—Seventeen weeks, five hours per week.

Dynamo-Electric Machinery—Nineteen weeks, five hours per week.

History—Twenty weeks, five hours per week.

Dynamometers and Measurement of Power—Twelve weeks, five hours per week.

Thesis Work—Nineteen weeks, twelve hours per week.

Every student, before he attains the degree of B. M. E., must present a satisfactory thesis on some new design of a machine, or an original investigation.

The greater part of the second term of the Senior Year is given to the preparing of this thesis. The subjects for theses are assigned to students by the Professor of Mechanical Engineering, and the completed theses are kept on file with the college records, that they may serve as a reference for future investigators.

XIII. DEPARTMENT OF ANATOMY AND PHYSIOLOGY.

PROFESSOR PRYOR.

Anatomy, Physiology, and Hygiene are taught to students of the Classical, Scientific, Biological, Chemical, and Normal courses, extending throughout both terms of the Freshman year.

At the beginning of the second term a special class is organized for the benefit of Normal students. A thorough working knowledge of these branches is taught by means of lectures, demonstrations, and recitations.

This department is well provided with the apparatus necessary to illustrate the work of the student. The equipment includes papier-mache manikin, and models (Auzoux) of eye, ear, larynx, etc., skeletons, charts, microscopes, a new projecting lantern of the latest pattern, a full set of anatomical and histological lantern slides, a Thoma-Zeiss Haemacytometer, Marey's Sphygmograph, modified by Mahomed, etc.

New apparatus is purchased each year, and with the addition of a Physiological Laboratory, nothing more could be desired.

The studies of this Department, in conjunction with those in other branches of Biology and Chemistry, serve as an admirable preparation for students who intend to enter upon a professional life, and this remark applies with special force to those who are to devote themselves to the study of medicine. Special arrangements have been made with leading medical colleges whereby certificates of proficiency issued from this Department will be duly accredited by them. This, in some instances, will be equivalent to one full year's study at a medical college, and will be accepted as such. To prospective students of medicine, therefore, this department offers inducements seldom afforded in educational institutions.

Text-books: Huxley and Youmans' Physiology and Hygiene; Martin's Human Body; Martin's Briefer Course, and Shafer's Essentials of Histology.

For reference only: Gray's Anatomy, Kirke's Hand-book of Physiology, and Foster's Physiology.

XIV. DEPARTMENT OF GEOLOGY AND ZOÖLOGY.

PROFESSOR MILLER.

EQUIPMENT AND FACILITIES.

This department occupies rooms in two buildings.

The Geological Room in the main building is fitted up with cases and laboratory tables. The former are filled with a classified collection of fossils and minerals illustrative of both general and local geology. The collection of fossils from different portions of the State is especially complete. Besides a department library of geological literature, containing nearly perfect sets of Reports of both this and neighboring States, and the valuable publications of the U. S. Geological Survey, a very full set of geological maps, charts, models, lantern slides, and photographic illustrations, the result of many years' accumulation, are available for purposes of instruction.

In addition to the facilities afforded by the in-door equipment, the situation of the College itself happens to be peculiarly favorable from a geological standpoint. Located, as it is, in the center of the Blue Grass Region, at the base of the Geological Series of the State, it affords logically the best starting point for the student of Kentucky geology, who would gain a clear comprehension of how the rock foundations of his State have been laid. Both for this reason, therefore, and because geology is preëminently an out-door study, the "Excursion" is made a prominent feature of the instruction in this Department. It is by the field work these excursions afford that the student's ability to apply in-door knowledge previously acquired is put to the test, and his powers of making generalizations in the open air are exercised.

The Zoölogical Laboratory in the basement of the Experiment Station is provided with tables and a special set of apparatus, including compound microscopes, for each student. Besides this there is a complete general equipment for all lines of zoölogical work, such as: a full set of zoölogical charts imported from Germany for use in the study of systematic Zoölogy; microtomes and paraffine baths for work in microscopy; a selection of Ward's

skeletons to illustrate osteology; alcoholic specimens of both marine and inland forms to illustrate general zoölogy, with duplicates for class dissections; and finally the Department is equipped with a library of standard zoölogical literature, including the leading periodicals devoted to the interests of biological science. Moreover, opportunities for collecting zoölogical material as well as for studying the habits of living animals, are afforded by the "Excursions" mentioned above.

Branches of Study.

A. GEOLOGY.

The exact time in a student's course at which the different subjects comprehended under this general title are studied, varies somewhat for the different courses; but the order of succession is as follows: 1. Palæontology, 2. Mineralogy, 3. Advanced Geology. Besides these, in which what follows is intimately based upon what precedes, are three self-contained studies: 4. Physiography, 5. A Shorter Course in Geology, and 6. Economic Geology.

I. PALAEONTOLOGY.

Second Term—Required of Juniors in the Biological, Scientific, and Bachelor of Pedagogy courses. Lectures on the nature and zoölogical positions of different fossil groups are given, and the student is expected to become familar with the fossils themselves by actual examination. Much of the work involves the use of artificial keys for determination similar to those used in Botany and Zoölogy. Special attention is paid to the fossils common in Kentucky. The collections of the Department are well suited for this purpose. The instruction is entirely by lectures and laboratory work.

II. MINERALOGY.

Second Term—This study follows Palæontology, with which it shares the time of the term. Required of the same students as the Palæontology. The object of this study is to render the student familiar with the composition and physical characteristics of those common minerals and rocks likely to come under his notice, as well in the ordinary round of every-day observation as

in geological pursuits. The instruction involves both laboratory and text-book work. Crosby's Tables for Determination and his Common Minerals and Rocks are the books used.

III. ADVANCED GEOLOGY.

First Term—Required of students in the Biological, Scientific, and Bachelor of Pedagogy courses, and open to all others who may have elected to take the Palæontology and Mineralogy, which precede. It is meant to be the culmination for those who have availed themselves of all the opportunities for the study of Geology offered in this Department. It is to be hoped that some of these students may be induced to go further, and either in their home localities or elsewhere make a beginning at doing original work. Kentucky, with its large amount of territory practically unexplored geologically, offers an especially fine field to young geologists.

Text-book: LeConte's Elements.

IV. PHYSIOGRAPHY.

First Term—Required of students in the Classical Course. Normal students have the option between this and the Shorter Course in Geology, unless they are candidates for the degree of B. Ped., in which case they take the same Geology as matriculates in the Scientific Course.

The object of this study is to give the student a somewhat comprehensive view of the earth and its inhabitants. Facts and theories in Physics, Biology, Geology, and Astronomy are enlarged upon at greater length than is usual in studies commonly included under the name of Physical Geography. Physiography is especially adapted to those who are preparing to teach, and to those in the Classical Department who, without having the time to devote to technical details, still desire some knowledge of those broad facts and principles of science which is essential to all who would lay claim to a liberal education.

Text-book: Mill's Realm of Nature.

V. SHORTER COURSE IN GEOLOGY.

This has been introduced in response to a special demand from the Normal Department for a course in Geology that would be at once short and self-contained. It is in the nature of an optional

study. Classes in it may be organized at the special request of not less than ten persons, who shall agree upon a suitable hour for meeting.

Text-book: LeConte's Compend, accompanied by lectures.

VI. ECONOMIC GEOLOGY.

Second Term—Required of all Seniors in the Chemical, Civil Engineering, and Agricultural Departments.

As the name indicates, it is the practical or inorganic rather than the organic side of Geology that is here made prominent. Historical Geology is studied briefly and in outline. Fossils are considered important in so far as they serve to determine rocks, whereas in General or Biological Geology the reverse may be considered true. Structural Geology becomes relatively important, and Mineralogy and Lithology occupy a leading place. Some of the topics of economic importance treated are: Common Rocks and Vein-forming Minerals; Origin of Ore Deposits; Mining Terms and Methods; Coal; Petroleum; Natural Gas, and Asphaltums; Building Stone, Clay, and Cement; Geological Fertilizers; Relation of Geology to Agriculture; Relation of Geology to Engineering.

Text-book: Tarr's Economic Geology, supplemented by lectures.

In addition to the above, a course of about five lectures on the Relation of Geology to Agriculture will be given in connection with the new Short Course in Agriculture, instituted by recent action of the Board of Trustees.

B. ZOÖLOGY.

Under this title are comprehended the following branches: 1. Systematic Zoölogy, 2. Laboratory Zoölogy, 3. Osteology, 4. Embryology, 5. Economic Entomology.

I. SYSTEMATIC ZOÖLOGY.

First Term—Required of Juniors in the Scientific and Bachelor of Pedagogy, and of Sophomores in the Biological and Agricultural courses.

A general presentation of the subject is here attempted. The general principles governing Taxonomy are laid down and the

different sub-kingdoms taken up and studied in detail. The practical work is limited to that which can be satisfactorily accomplished in daily exercises of one hour each. Much of it consists of demonstrations by the instructor of the chief external features of the animal as well as of such internal features as can be presented in this brief space of time. Accompanying this instruction, which is given chiefly by lectures and demonstrations, the student is expected to gain facility in the determination of species through the use of natural and artificial "keys," as, for instance: Jordan's Manual of the Vertebrates of the United States, and Miss Warner's Butterflies of Kentucky. A copy of each of these is loaned to the student as a part of the laboratory equipment. In this way, the powers of scientific observation and discrimination are trained. Finally a text-book: Arthur Thompson's Animal Life is used to present to the class in a form suitable for discussion such interesting topics of Biology as Interrelation of Plants and Animals, the Struggle for Existence, Coloration of Animals, Social Life of Animals, Protoplasm, Origin of Life, Physiological Division of Labor, Animal Psychology, Principles of Embryology, the Past History of Animals, the Doctrine of Evolution, Heredity, Animal Life and Ours.

II. LABORATORY ZOÖLOGY.

Second Term—Required of the same students as have completed the Systematic Zoölogy of the first term, with the exception of the matriculates in the Chemical course. They take only the first term's work. The nature and scope of the work here is best described under the term "Animal Morphology." In the exercise of one hour and a half devoted to this subject five times a week, both the macroscopic and microscopic anatomy of animals is studied by the most approved modern methods and appliances. To each student is assigned a table with the use of a full line of apparatus and re-agents, for which no charge is made, with the exception of that for a set of dissecting instruments and for breakage. The object of this course is the acquisition by the student, first, of a thorough knowledge of the comparative anatomy of leading types; secondly, of skill in anatomical dissection and microscopical manipulation. Knowledge of this kind, obtained as it is by the direct examination of living

and dead tissue, as well as by the actual hardening, staining, sectioning, and mounting of the latter for microscopical investigation, will be found especially valuable to persons who intend to study medicine.

The instruction is given chiefly by means of lectures and printed or dictated directions for the practical work.

III. OSTEOLOGY.

First Term—Required of Juniors in the Biological and Agricultural courses. Five hours a week are given to the comparative study of the Vertebrate skeleton—chiefly that of the Mammalia. For this purpose a selected collection of Ward type skeletons are used.

Text-book: Flower's Osteology of the Mammalia.

IV. EMBRYOLOGY.

Second Term—Required of Juniors in the Biological course. Three afternoons a week are assigned for this study. Instruction consists of lectures upon the general facts and principles of Embryology, accompanied by practical work on the embryonic development of such vertebrates as the frog and chick.

Text-book: Balfour's Elements of Embryology.

IV. ECONOMIC ENTOMOLOGY.

First Term—This study is laid down for Seniors in the Biological and Agricultural courses.

The Entomological work is made a separate feature because of its economic importance. It is estimated by our best entomologists and statisticians that we lose annually in this country from the depredations of injurious insects not less than $100,000,000. If this be so, it is highly important that a knowledge of insects and their habits should be disseminated among the people, and is especially important in Kentucky, where the leading industry is agriculture. It has been urged that a reduction of a crop to the extent of one fourth or one half of its value by insects should be regarded as a tax of twenty-five or fifty per cent on its full value. Such a tax is collected year after year, often without any attempt at resistance. It is the purpose of the Entomological work at the College to place in the hands of the students who expect to make farming their occupation such means of defense against loss as

are known to those who have given the matter study. The Department is especially well provided for in this direction, having the benefit of the work done at the Experimental Station, and having access to the collections, apparatus and library, accumulated for Station work. The collection now contains examples of most of the injurious insects which are found in the United States, and is constantly being enlarged. The Station is well supplied with breeding cages for use in studying the habits and life histories of insects, so that students who wish to do so have an opportunity to observe for themselves the various stages presented by a developing insect, and may see it in many cases actually engaged in its destructive work. An Insectary recently added to our facilities gives us increased opportunity in the field of investigation.

By special arrangement the instruction in this branch is under the charge of the Entomologist of the Station, Professor Garman.

XV. DEPARTMENT OF PHYSICS.

PROFESSOR PENCE.

EQUIPMENT AND FACILITIES.

The Department of Physics occupies two adjacent rooms on the east side, and in the basement of the Main College Building. The lecture room is eighteen feet by forty-four feet, and will comfortably seat fifty or more students. It has the necessary lecture table, with gas, water, and drainage, and is arranged to be used at pleasure as a dark room. The laboratory is twenty-four feet by thirty feet. It is well furnished with cases for apparatus, tables, water, instruments for use in experimentation, and has twenty-four spaces at the tables for individual work, each with gas and drawers. This department is well equipped with apparatus, nearly all of which is new. The rooms are the best fitted and furnished in the building.

COURSE OF STUDY.

The study of Physics is begun in the last year of the Academy. One hour per day for five months is given to recitations, and to a series of experiments by the instructor, illustrating the subject-matter of the text.

Text-book: Gage's Introduction to Physical Science.

The work in the College proper begins in the Sophomore year, during the first term of which there are lectures, fully illustrated by experiments, with recitations one hour daily. This course embraces the subjects of Molar, Molecular, and Ether Dynamics, treating of the General Properties of Matter, Sound, Heat, Light, Electricity and Magnetism, and is intended to give the student a general knowledge of Physical Phenomena and of Physical Laws, and to prepare him for the practical work which accompanies and follows the course.

Text-book: Gage's Principles of Physics.

The students in Engineering work in the physical laboratory one hour daily during this term, experimenting in the subjects of the lecture course.

During the second term of the Sophomore year students in the other courses work in the laboratory one and one-half hours daily. Gage's Laboratory Manual and Note-Book is used.

The work of the Junior year is specialized. Heat is studied one hour daily during the first term, some of the subjects being Thermometry, Expansion of Solids, Liquids and Gases, Calorimetry, Fusion and Vaporization, Hygrometry, Radiation, Convection, Conduction, etc. A portion of the time is given to experimentation in the laboratory.

Text-book: Cumming's Heat.

One hour daily is given to the study of Electricity and Magnetism during the second term of this year. The principal subjects studied are Frictional Electricity, Magnetism, Current Electricity, Electrostatics, Electromagnetics, Measurements of Currents, Thermo-Electricity, Heat and Power and Light from Electric Currents, Inductance, Dynamos and Transformers, Telegraphy, Telephony, Electric Radiations and Electric Waves. Work is done in the Laboratory. The Department has a fine lot of electrical apparatus.

Text-book: Sylvanus P. Thompson's Electricity and Magnetism.

Much importance is attached to all work in the laboratory. Each student is furnished with the necessary apparatus, and must keep a systematic account of all his experiments, giving data and results of each. The work is both qualitative and quantitative.

DEGREES.

The State College confers the degrees of—

Bachelor of Science (B. S.),
Bachelor of Arts (A. B.),
Bachelor of Agriculture (B. Agr.),
Bachelor of Civil Engineering (B. C. E.),
Bachelor of Mechanical Engineering (B. M. E.),
Bachelor of Pedagogy (B. Ped.),
Master of Science (M. S.),
Master of Arts (A. M.),
Master of Agriculture (M. Agr.),
Master of Civil Engineering (C. E.),
Master of Mechanical Engineering (M. E.).

CONDITIONS OF GRADUATION.

To attain the Bachelor's degree, the applicant must have been a student of the College at least one session, and he must have passed the examination on all the courses of study leading to the desired degree.

To attain the Master's degree the applicant must have attained the Bachelor's; he must have pursued, for at least one session in this College or two sessions elsewhere, a major study selected by himself and one or two minor studies assigned him by the Faculty; and finally he must, at least thirty days before the end of the session, have satisfied the Faculty that he is duly proficient in his studies, and have presented to the College an acceptable thesis on his major study or on some part thereof.

If the applicant be an alumnus of another institution of learning, he must satisfy the Faculty that he has completed a course of study for his first degree equivalent to that prescribed in this College for the same degree; and he must matriculate and study under the direction of the Faculty at least one session.

Students that complete a part of the courses in a satisfactory manner may, in attestation of the fact, receive Certificates of Proficiency.

GROUPING OF COURSES FOR DEGREES.

I. COURSES FOR THE DEGREE OF B. S.,

WITHOUT MAJOR STUDY.

History, Political Economy, and Metaphysics,	President Patterson.
Botany,	Professor Mathews.
The English Language and Literature,	Professor Shackleford.
Military Science,	Captain Swigert.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White, Dean.
The French and German Languages,	Professor Wernicke.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Physics,	Professor Pence.
Drawing,	Ass't Professor Wells.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minor studies will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English History, Political Economy, Metaphysics, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Gen. Course.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Plane Geom.	Drawing.	Physiology.	Drill.	
	English.	Plane Trigonom.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geom.	German.	Physics.		Drill.	Botany. (Laboratory.)
	Analytic Geom.	German.	Botany.	Chemistry.	Drill.	Physics. (Laboratory.)
Junior Year.	Zoölogy.	English.	French.	German.	Drill.	Chemistry. (Laboratory.)
	Geology. (Palæontology and Mineralogy).	English.	French.	German.	Drill.	Zoölogy. (Laboratory.)
Senior Year.		History.	Mental Philosophy.		Drill.	Geology. (General.)
		History. Polit. Economy.	Logic.	Astronomy.	Drill.	

II. COURSES FOR THE DEGREE OF B. S.,

MAJOR STUDY, CHEMISTRY.

History, Political Economy, and Metaphysics, . . President Patterson.
Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics, ... Professor White, Dean.
The French and German Languages, ... Professor Wernicke.
Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Physics, ... Professor Pence.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minors will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Maj. Chem.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:30 to 4 P. M.
Freshman Year.	English.	Geometry.	French.	Physiology.	Drill.	
	English.	Trigonometry.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geometry.	German.	Physics.		Drill.	Botany. (Laboratory.)
	Analytical Geometry.	German.	Botany.	Chemistry.	Drill.	Physics. (Laboratory.)
Junior Year.	Zoölogy.	English.	Calculus.	German.	Drill.	Chemistry. (Laboratory.)
	Theoretical Chemistry.	English.	French.	German.	Drill.	Chemistry. (Laboratory.)
Senior Year.		History.	Mental Philosophy.	General Chemical Reading.	Drill.	Chemistry. (Laboratory.)
		Political Economy.	Logic.	Economic Geology.	Drill.	Chemistry. (Thesis.)

III. COURSES FOR THE DEGREE OF B. S.,

MAJOR STUDY, BIOLOGY.

History, Political Economy, and Metaphysics, . . President Patterson.
Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics, ... Professor White, Dean.
The French and German Languages, ... Professor Wernicke.
Entomology, ... Professor Garman.
Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Physics, ... Professor Pence.
Drawing, ... Ass't Professor Wells.

For the Degree of M. S., either Chemistry, Biology, Geology, Mathematics, or Physics may be selected as major study; and minors will be assigned from Biology, Chemistry, Geology, Mathematics, Physics, English Literature, History, Political Economy, Mental Science, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. S. (Maj. Biol.)

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Geometry.	Drawing.	Physiology.	Drill.	
	English.	Trigonometry.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Zoölogy.	German.	Physics.		Drill.	Botany.
		German.	Botany.	Chemistry.	Drill.	Zoölogy.
Junior Year.	Plant Histology.	Osteology.	French.	German.	Drill.	Cryptogamic Botany.
	Geology (Palæontology and Mineralogy.)		French.	German.	Drill.	Embryology. Plant Physiology.
Senior Year.	Entomology.	History.	Mental Philosophy.		Drill.	General Geology.
	Botany (Special Work.)	Political Economy.	Logic.	Astronomy.	Drill.	Thesis.

IV. COURSES FOR THE DEGREE OF A. B.,

MAJOR STUDIES, GREEK AND LATIN.

History, Political Economy, and Metaphysics, . . President Patterson.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
The French and German Languages, ... Professor Wernicke.
The Greek and Latin Languages, ... Professor Neville, Dean.
Asst. Prof. Blanton.
Physiology, ... Professor Pryor.
Physiography, ... Professor Miller.

For the Degree of A. M., either Greek, Latin, English, History, Mental Science, French or German may be selected as major study; and minors will be assigned from Greek, Latin, English, Mathematics, History, Mental Science, Political Economy, French and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF A. B.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Greek or German.	Physiology.	Latin.	Drill.	
	English.	Greek or German.	Algebra.	Latin.	Drill.	
Sophomore Year.	Latin.	Plane Geometry.	Greek.	Elective Study.	Drill.	
	Latin.	Plane Trigonometry.	Greek.	Chemistry.	Drill.	
Junior Year.	Solid Geometry.	English.	French.	Greek or German.	Drill.	
	Analytical Geometry.	English.	French.	Greek or German.	Drill.	
Senior Year.	French.	History.	Mental Philosophy.	Physiography.	Drill.	
	French.	Political Economy.	Logic.	Astronomy.	Drill.	

V. COURSES FOR THE DEGREE OF B.PED.

MAJOR STUDY, PEDAGOGY.

History, Political Economy, and Metaphysics,	President Patterson.
Botany and Horticulture,	Professor Mathews.
The English Language and Literature,	Professor Shackleford.
Military Science,	Captain Swigert.
Chemistry,	Professor Kastle.
Mathematics and Astronomy,	Professor White.
The Greek and Latin Languages,	Professor Neville.
Pedagogy,	Professor Roark, Dean. Asst. Prof. Newman.
Anatomy and Physiology,	Professor Pryor.
Geology and Zoölogy,	Professor Miller.
Physics,	Professor Pence.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. PED.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English Literature.	Plane Geometry.	Drawing.	Physiology.	Drill.	
	English Literature.	Plane Trigonometry.	Algebra.	Physiology.	Drill.	
Sophomore Year.	Solid Geometry.	Cicero.	Physics.		Drill.	Botany. (Laboratory.)
	Analytical Geometry.	Virgil.	Botany.	Chemistry.	Drill.	Physics. (Laboratory.)
Junior Year.	Zoölogy.		Horace.		Drill.	Chemistry. (Laboratory.)
	Geology. (Palæontology, Mineralogy.)	Advanced Latin.	Educational Psychology.		Drill.	Zoölogy. (Laboratory.)
Senior Year.		History.	Mental Philosophy.	School Economy Methods.	Drill.	Geology. (General.)
	School Economy, History of Education.	History, Political Economy	Logic, Astronomy, Moral Philosophy.	Astronomy.	Drill.	

SCHEDULE OF STUDIES FOR THE STATE DIPLOMA.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	At Other Hours.
One Year.	Latin.	Plane Geometry.	Psychology.	Physics.	Drill.	Forensics.
	English Literature.	Advanced Arithmetic.	Advanced Algebra.	Latin.	Drill.	Forensics, Pedagogy.

SCHEDULE OF STUDIES FOR THE COUNTY CERTIFICATE.

Five Months.	Arithmetic or Grammar.	Geography or Composition.	Civics or Orthography.	U. S. History.	Drill.	Forensics.
Ten Weeks.	Arithmetic or Composition.	Higher Arithmetic or Grammar.	Geography or Physiology.	Civics.	Drill.	Forensics.
	Ky. History or Grammar.	Higher Arithmetic or Composition.	Geography or Physiology.	U. S. History.	Drill.	Forensics, Pedagogy.

SCHEDULE OF STUDIES FOR THE STATE CERTIFICATE.

Second Five Months.	English Literature.	Higher Arithmetic.	Psychology.	Algebra.	Drill.	Forensics, Pedagogy.

VI. COURSES FOR THE DEGREE OF B. C. E.,

MAJOR STUDY, CIVIL ENGINEERING.

History and Political Economy, ... President Patterson.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
Civil Engineering, ... Professor Nelson, Dean.
Mechanical Engineering, ... Professor Anderson.
Geology, ... Professor Miller.
Physics, ... Professor Pence.
Descriptive Geometry, ... Asst. Prof. Wells.

For the Degree of C. E., either Railways, Structures, Regimen of Streams, Canals and Water Power, Municipal or Mining Engineering, Sanitation, Topographical, Geodetic, and Hydrographical Surveys, or Architectural Engineering may be selected as major study; and minors will be assigned from Mathematics, Astronomy, Mechanical Engineering, Geology, Chemistry, Physics, Political Economy, English, French, and German.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. C. E.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Plane Geometry.	Draughting.	Draughting.	Drill.	Fieldwork Draughting.
	English.	Plane Trigonometry.	Plane Surveying.	Topographical Drawing.	Drill.	Fieldwork Draughting.
Sophomore Year.	Solid Geometry, Algebra.	Railway Location.	Physics.	Physical Laboratory.	Drill.	Fieldwork Draughting.
	Analytical Geometry.	Descriptive Geometry.	Structural Designs.	Chemistry.	Drill.	Fieldwork Draughting.
Junior Year.	Railways, Other Highways.	Graphical Statics.	Calculus.	Advanced Surveying, Spher. Trigonom.	Drill.	Structural Draughting.
	Electricity, Magnetism.	Strength of Materials.	Theory of Structures.	Analytical Mechanics.	Drill.	Architectural Draughting.
Senior Year.	Bridges and Structures.	History.	Hydraulic Engineering, Architecture.	Sanitary Engineering, Architecture.	Drill.	Designing Structures.
	Stereotomy, Mining.	Political Economy.	Geodesy, Least Squares.	Economic Geology.	Drill.	Thesis.

VII. COURSES FOR THE DEGREE OF B. M. E.,

MAJOR STUDY, MECHANICAL ENGINEERING.

History and Political Economy,	President Patterson.
The English Language and Literature,	Professor Shackleford.
Military Science,	Captain Swigert.
Chemistry,	Professor Kastle.
Mathematics,	Professor White.
Mechanical Engineering,	Professor Anderson, Dean.
	Asst. Prof. Wells.
Physics,	Professor Pence.
Shopwork and Drawing,	Instructor Johnson.
Experimental Engineering,	Assistant Kearney.

For the Degree of M. E., either Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, or Machine Designing may be selected as major study; and minor studies will be assigned from Steam Engineering, Electrical Engineering, Chemical Engineering, Experimental Engineering, Machine Designing, Mechanical Laboratory Work, Mathematics, Physics, Chemistry, Mental Science, Political Science, English and Modern Languages.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. M. E.

		First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	2:45–5 P. M.
Freshman Year.	1st Term.	English.	Plane Geometry.	Mechanical Drawing.	Wood Working Tools. Mechan'l Drawing.	Drill.	Shop Work in Wood, Bench, and Lathe.
	2d Term.	English.	Plane Trigonometry.	Mechanical Drawing.	Theory of Pattern Making and Foundry Practice.	Drill.	Pattern Making Foundry.
Sophomore Year.	1st Term.	Solid Geom'try, Algebra.	Mechanical Drawing.	Physics.	Physical Laboratory.	Drill.	Iron and Steel Forging.
	2d Term.	Analytical Geometry.	Descriptive Geometry.	Elementary Designing.	Chemistry.	Drill.	Vise Work in Metal. Machine Work.
Junior Year.	1st Term.	Heat.	Kinematics.	Calculus.	Machine Design.	Drill.	Chemical Laboratory. Machin. Design.
	2d Term.	Magnetism and Electricity.	Strength of Materials.	Metallurgy.	Analytical Mechanics.	Drill.	Advanced Work in Physical Lab. Machin. Design.
Senior Year.	1st Term.	Thermodynamics.	History.	Steam Boilers, Transmission of Power.	Valve Gearing.	Drill.	Valve and Engine Designing.
	2d Term.	Engine Design.	History and Political Economy.	Dynamometers and Measurement of Power. Dynamo Electric Machinery.	Experimental Work; Engine, Boiler, Belt, and Materials of Construction Tests.	Drill.	Thesis Work.

VIII. COURSES FOR THE DEGREE OF B. AGR.,

MAJOR STUDIES, BOTANY, HORTICULTURE, AND AGRICULTURE.

History, Political Economy, and Metaphysics, . . President Patterson.
Agriculture, Horticulture, and Botany, ... Professor Mathews.
The English Language and Literature, ... Professor Shackleford.
Military Science, ... Captain Swigert.
Chemistry, ... Professor Kastle.
Mathematics and Astronomy, ... Professor White.
The French and German Languages, ... Professor Wernicke.
Entomology, ... Professor Garman.
Anatomy and Physiology, ... Professor Pryor.
Geology and Zoölogy, ... Professor Miller.
Mechanical Engineering, ... Professor Anderson.
Physics, ... Professor Pence.
Drawing, ... Asst. Prof. Wells.

For the Degree of M. Agr., either Agricultural Chemistry, Horticulture, Entomology, Economic Botany or Veterinary Science may be selected as major study; and minors will be assigned from Agricultural Chemistry, Horticulture, Entomology, Zoölogy, Geology, Botany, and Veterinary Science.

SCHEDULE OF STUDIES FOR THE DEGREE OF B. AGR.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Afternoon.
Freshman Year.	English.	Geometry.	Drawing.	Physiology.	Drill.	
	English.	Trigonometry.	Algebra.	Physiology.	Drill.	Woodwork, Forging.
Sophomore Year.	Zoölogy.	German.	Physics.		Drill.	Botany. (Laboratory.)
		German.	Botany.	Chemistry.	Drill.	Zoölogy. (Laboratory.)
Junior Year.	Plant Histology.	Osteology.	French.	German.	Drill.	Chemistry. (Laboratory.)
	Agricultural Chemistry.	Soils, Draining, Fertilizers.	French.	German.	Drill.	Plant Physiology, Horticulture.
Senior Year.	Entomology.	Stock Breeding, Feeding, Dairying.		Horticulture.	Drill.	Economic Botany.
		Political Economy.		Economic Geology.	Drill.	Thesis.

THE ACADEMY.

W. K. PATTERSON,
PRINCIPAL.

J. LEWIS LOGAN,
J. MORTON DAVIS,
V. E. MUNCY,
ASSISTANTS.

COURSES OF STUDY.

I. SCIENTIFIC, AGRICULTURAL, AND ENGINEERING COURSE.

First Year — Arithmetic, Robinson's Complete; Algebra, Wentworth's Higher, to Chapter XI; Political and Descriptive Geography, Butler's Complete; History of the United States, Eggleston; English Grammar, Patterson's Advanced.

Second Year — Arithmetical Problems, Robinson; Algebra, Wentworth's Higher, to Chapter XXII; Elementary Physics, Gage; Physical Geography, Tarr; General History, Anderson; Rhetoric, Williams; Synonyms, Graham.

II. CLASSICAL AND NORMAL COURSE.

First Year—Latin Grammar, McCabe's Bingham; Viri Romae or Scudder's Gradatim; White's Beginner's Greek Book, or Gleason and Atherton's First Greek Book; Arithmetic, Robinson's Complete; Algebra, Wentworth's Higher, to Chapter XI; English Grammar, Patterson's Advanced.

Second Year—Latin Grammar continued; Cæsar, Kelsey; Greek Grammar continued; Gleason's Gate to the Anabasis; Xenophon's Anabasis, Kelsey; Arithmetical Problems, Robinson; Algebra, Wentworth's Higher, to Chapter XXII; Elementary Physics, Gage; Rhetoric, Williams; Synonyms, Graham.

SCHEDULE OF STUDIES IN THE ACADEMY.

SCIENTIFIC, AGRICULTURAL, AND ENGINEERING.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.
First Year.	English Grammar.	Geography.	Arithmetic.	Algebra.	Drill.	
	English Grammar.	History.	Arithmetic.	Algebra.	Drill.	
Second Year.	Rhetoric.	Algebra.	Physical Geography.	Arithmetic.	Drill.	
	Rhetoric Synonyms.	Algebra.	History.	Physics.	Drill.	

CLASSICAL AND NORMAL.

	First Hour.	Second Hour.	Third Hour.	Fourth Hour.	Fifth Hour.	Sixth Hour.
First Year.	English Grammar.	Latin Grammar.	Arithmetic.	Algebra.	Drill.	
	Greek Grammar.	Latin Grammar.	Arithmetic.	Algebra.	Drill.	
Second Year.	Rhetoric.	Algebra.	Latin Reader.	Physics.	Drill.	Greek Reader.
	Rhetoric. Synonyms.	Algebra.	Cæsar.	Arithmetic.	Drill.	Anabasis.

Note—Greek is for classical students only.

The Academy is under the immediate direction and management of a Principal and three Assistants, all of whom are experienced professional teachers.

The pupils are subject to the same rules and regulations as the students of the College. Their attendance at the College is required only during the hours of recitation and other prescribed College exercises, such as chapel, drill, etc., the preparation of their lessons being made elsewhere.

The courses of instruction in the Academy are provided for those who enter directly from the common schools, and are intended to supply the necessary training intermediate between the course of study prescribed by the State Board of Education for the common schools and the Freshman Class of the College.

Applicants for admission to the Academy, if county appointees, must be at least fourteen years of age, and must be provided with credentials of scholarship from the County Superintendent. They must also pass a satisfactory examination in spelling, reading, writing, arithmetic, history of the United States, English grammar and geography, in order to be admitted.

Other applicants must be at least fifteen years of age, and must have completed the common school course prescribed by the State Board of Education. They must pass a satisfactory examination in spelling, reading, writing, arithmetic to percentage, English grammar through syntax, and geography, in order to be admitted. Applicants from the city will be required to pass an examination on all the subjects embraced in the first year's Scientific Course in the Academy. Those who enter at any other time than the beginning of the year will be required to pass a satisfactory examination on the work already gone over by the classes which they propose to enter.

Students matriculating in the Academy will be required to pursue one of its prescribed courses of study, and will not be permitted to take any work outside of this course, except on the recommendation of the Principal.

ENTRANCE EXAMINATION.

For the benefit of those, other than county appointees, who desire to know the character of the examination which applicants for admission will be required to pass, the following examina-

tion papers are submitted as a sample. It is not to be understood that these are the questions on which the pupils will be examined, but that they indicate the attainments necessary to enter the Academy of the College. Those who expect to enter more advanced classes will be required to pass an examination on all that the class which they propose to enter has passed over.

I. ARITHMETIC.

Find the greatest common divisor and the least common multiple of 899 and 961.

Simplify $2\frac{1}{4} \times \frac{10\frac{3}{4} - 4\frac{11}{12}}{6\frac{3}{16} \times 7\frac{2}{3}} \div \frac{3\frac{5}{11}}{1\frac{2}{5} + 9\frac{1}{11}}$

Find the number of bushels that will fill a bin 8.5 feet long, 4.5 feet wide, 3.5 feet deep.

The longitude of Rome is 12° 27′ 14″ east; the longitude of Chicago is 87° 35′ west; find the difference in time between the two places.

What will be the cost of plastering the walls and ceiling of a room 24 feet 4 inches long, 20 feet wide, and 12 feet 6 inches high, at 27 cents per square yard, if 20 square yards be deducted for doors, windows, and baseboard?

If a train at the rate of $\frac{5}{13}$ of a mile per minute takes $3\frac{1}{4}$ hours to reach a station, how long will it take at the rate of $\frac{7}{15}$ of a mile per minute?

A and B can do a piece of work in $2\frac{1}{2}$ days, A and C in $3\frac{1}{3}$ days, B and C in $4\frac{1}{4}$. Required the time in which all these working together can do the work, and in which each can do the work alone.

A farmer sowed 5 bushels, 1 peck, 1 quart of seed, and harvested from it 103 bushels, 3 pecks, 5 quarts. How much did he raise from a bushel of seed?

Reduce 9 square chains, 11.25 square rods, to the decimal of an acre.

If a bar of iron $3\frac{1}{3}$ feet long, 3 inches wide, $2\frac{3}{4}$ inches thick weighs 93 pounds, what will be the weight of a bar $3\frac{2}{3}$ feet long, 4 inches wide, and $2\frac{1}{2}$ inches thick?

II. ENGLISH GRAMMAR.

Name, define, and give examples of all parts of speech.

Define a phrase, a clause, and give examples of each.

What are the only verbs that can be in the passive voice? Why?

Write a complex sentence containing a noun clause; one containing an adjective clause; one containing an adverbial clause.

Analyze the following sentence, and parse all the words in full:

"The soldiers of the tenth legion, wearied by their long march, and exhausted from want of food, were unable to resist the onset of the enemy."

III. GEOGRAPHY.

What are the circles of the earth?

What are the meridians?

Define latitude and longitude.

What two meridians bound the hemispheres?

Define the two principal forms of government.

Bound North America and describe its political divisions.

Why is the climate of Western Europe different from that of America in the same latitudes?

Describe the mountains, principal rivers, and lakes of Asia.

Describe the natural routes of commerce.

IV. HISTORY.

What section of the United States was first explored by the Spanish? the French? the English?

Give a concise description of the settlement of Plymouth, Jamestown, New York City, and their distinctive characteristic.

Define Charter, Proprietary, and Royal government as applied to the colonies, and name the colonies that were under each of these forms of government.

Name the three principal causes of the Revolutionary War.

What was the main cause of the War of 1812?

What caused the Mexican War?

Give the leading political differences between the North and the South at the opening of the Civil War.

Name the three departments of the government under the Constitution, and define the duties of each.

STUDENT ORGANIZATIONS.

THE UNION LITERARY SOCIETY.

This, the oldest of the four literary associations connected with the State College, was formed in 1872 by the consolidation of the Yost Club and the Ashland Institute, and operates under a charter from the Legislature. It occupies a commodious and well-furnished hall in the main building, and is supplied with a library due in part to an appropriation from the State. Besides the weekly meetings devoted to declamations, essays, and debates, the Society holds on the 22d of February an annual contest in oratory, and awards to the successful competitor a gold medal provided by the alumni.

THE PATTERSON LITERARY SOCIETY.

This Society, formed in 1887, and named at the suggestion of Gov. Knott in honor of the President of the College, was chartered in 1888. It is provided with a handsome room and a good library. The annual oratorical contest is held on the 26th of March, the birthday of the President, who presents the first prize, a gold medal. The second, also a gold medal, is the gift of George W. Crum, of Louisville.

THE PHILOSOPHIAN SOCIETY.

The Philosophian Society, formed by the young women of the College in 1882 for literary improvement and social pleasure, offers, besides the usual weekly meetings, a public entertainment consisting of declamations, essays, criticisms, and orations.

THE MECHANICAL ENGINEERING SOCIETY.

This body, composed of matriculates in either course of engineering, meets on the third Friday of each month. The exercises consist of a paper read by a member on some pertinent

topic, followed by a general discussion. During the year the Society is occasionally favored with lectures by experienced engineers not connected with the College.

THE BIOLOGICAL SOCIETY.

This was the first Scientific Society organized in the institution. For a time it was composed chiefly of members of the Faculty and of the staff of the Experiment Station. Recently it has been reorganized and placed under the management of students, still retaining, however, the larger part of the original members.

The objects of the Society are the cultivation of an interest in Natural History and the stimulation of a spirit of original research. The exercises at the monthly meetings consist of essays and discussions.

ATHLETICS.

Opportunity for physical exercise and legitimate outdoor sport is afforded by the spacious Athletic Field and Parade Ground. The management of athletics by the students is vested in an Athletic Association formed by the union of the Foot-ball, the Base-ball, and Track-athletic Societies. The officers of these three sub-organizations constitute the managing Board of the Athletic Association. The control of athletics by the faculty is secured through their Committee on Athletics, acting under a set of regulations adopted by the Faculty and approved by the Trustees.

ALUMNI.

1869.

MUNSON, WILLIAM BENJAMIN, B. S. .....Denison, Texas.

1870.

MUNSON, THOMAS VOLNEY, B. S. .....Denison, Texas.

1871.

HARDING, ENOCH, B. S. .. ..Ft. Worth, Texas.

1874.

CARSWELL, ROBERT EMMETT, B. S. .....Decatur, Texas.
DEAN, JOHN ALLEN, B. S. .....Owensboro.
HARDIN, THOMAS ROLLINS, B. S., ...Fort Jesup, La.
SMITH, EDWARD EVERETT, B. S. .....Atlanta, Ga.

1875.

BROWN, EDGAR THOMAS, B. S. .....Wichita, Kansas.

1877.

FLOETE, FRANKLIN, B. S. .....Spencer, Iowa.
WARD, BALLARD PRESTON, B. S. .....Speedwell, Va.

1878.

COLE, MOSES SALVADOR, B. S. .....Rivas, Nicaragua.
*MACKIE, MAHLON, B. S. .....

1879.

BLAKELY, CHARLES GRAHAM, B. S. .....Topeka, Kansas.
HAYS, NAPOLEON BONEPARTE, B. S. .....Pineville.
PERRY, CALEB SYKES, B. S. .....Winfield, Kansas.
WRIGHT, HENRY MOSES, B. S. .....Rome, Georgia.

1880.

CRAWFORD, JAMES, B. S. .....Lexie, Tennessee.
PETER, ALFRED MEREDITH, B. S. .....Lexington.
WELLER, NICHOLAS JOHN, B. S. .....Pineville.
WHATLEY, GEORGE CROGHAN, B. S. .....Birmingham, Ala.

1881.

PENCE, MERRY LEWIS, B. S. .....Lexington.

*Deceased.

1882.

BERRY, GEORGE G., B. S. ..... Lexington.
DE ROODE, LOUIS KUINDERS, A. B. ..... Louisville.
PATTERSON, JOHN LETCHER, A. B. ..... Louisville.
RODGERS, EDWARD LEE, A. B. ..... Cincinnati, Ohio.
SHACKLEFORD, JOHN ARMSTRONG, A. B. ..... Tacoma, Wash.
STOLL, JOHN WILLIAM, A. B. ..... Lexington.

1883.

*KING, WILLIAM ELIJAH, B. S. .....
TAYLOR, JAMES W., A. B. ..... St. Louis, Mo.

1884.

EUBANKS, BURTON PENDERGAST, B. S. ..... Ft. Worth, Texas.
GRAVES, CLARENCE SCOTT, B. S. ..... Lexington.
*JONES, HENRY CLAY, B. S. ..... Lexington.
KASTLE, JOSEPH HOEING, B. S. ..... Lexington.
RAMSEY, RUSSELL THOMAS, B. S. ..... London.
RILEY, OTIS VIOLETTE, B. S. ..... Pineville.

1885.

DE ROODE, RUDOLPH JOHN JULIUS, B. S. ..... New York, N. Y.
GESS, GEORGE THOMAS, B. S. ..... Lexington.
GORDON, J. CRITTENDEN, B. S. ..... Pleasureville.
LAMBUTH, WILLIAM DAVID, A. B. ..... Seattle, Washington.
SCOTT, JAMES RUSSELL, B. S. ..... Lexington.
THORNBURY, WILLIAM GARLAND, B. S. ..... New York, N. Y.

1886.

MORGAN, THOMAS HUNT, B. S. ..... Bryn Mawr, Pa.
PREWITT, ROBERT LEE, A. B. ..... Walnut Hill.
PREWITT, WILLIAM C., A. B. ..... Ft. Worth, Texas.

1887.

HIFNER, KEARNEY LEE, B. S. ..... South Elkhorn.
SHACKLEFORD, THOMAS WHEATLEY, A. B. ..... Superior, Wis.

1888.

BARTLETT, FREDERICK VINCENT, B. S. ..... Lexington.
BRYAN, GEORGE GIST, B. S. ..... Lexington.
CURTIS, HENRY ERNEST, B. S. ..... Lexington.
GUNN, BELLE CLEMENT, B. S. ..... Springfield, Ohio.
PAYNE, ROBERT TREAT, B. S. ..... Athens.

1889.

ELLERSHAW, EDWARD, A. B. ..... Digby, Nova Scotia.
FRAZER, HUGH MILLER, B. S. ..... Lexington.
*PATTERSON, WILLIAM ANDREW, B. S. ..... Lexington.
PREWITT, ANNIE GIST, B. S. ..... Walnut Hill.
WALKER, ROBERT BERNIE, B. S. ..... Lexington.

*Deceased.

1890.

ANDERSON, RICHARD THOMAS, JR., B. S. .....Lexington.
BAKER, ANNIE JANE, B. S. .....Lexington.
BROCK, CHARLES ROBERT, B. S. .....London.
FORSTON, KEENE RICHARDS, B. S. .....Indianapolis.
GUNN, JOHN WESLEY, C. E. .....Lexington.
HOEING, CHARLES, A. B. .....Lexington.
WILSON, MARGARET AGNES, B. S. .....Chicago, Ill.
YATES, JAMES ANDERSON, B. S. .....Williamsburg.

1891.

BERRY, HENRY SKILLMAN, B. S. .....Lexington.
CLARDY, U. L., B. S. .....Newstead.
MUNCY, VICTOR EMANUEL, B. S. .....Lexington.
WALLIS, WILLIAM RUSSELL, C. E. .....Lexington.
WARNER, B. CALLIE, B. S. .....Lexington.

1892.

COX, ARTHUR MELVILLE, A. B. .....Cynthiana.
ELKIN, FIELDING CLAY, B. S. .....Lexington.
HUNT, IRENE LEONORA, B. S. .....Lexington.
MAXEY, JOHN GEE, A. B. .....Tompkinsville.
PAGE, WILLIAM SEABURY, C. E. .....McMillin, Wash.
POTTINGER, SAMUEL LANCASTER, A. B. .....Louisville.
*REYNOLDS, FRANK CRAIG, C. E. .....
SCOVELL, FRANK ELMER, C. E. .....Rosehill, Ill.
SHAW, HIRAM, JR., B. S. .....Lexington.
SHELBY, ISAAC PRATHER, C. E. .....Lexington.
SOUTHGATE, BUTLER TURPIN, A. B. .....Lexington.

1893.

ADAMS, KATHERINE INNES, A. B. .....Lexington.
BRYAN, JOHN IRWIN, B. S.; B. M. E., '95. .....San Francisco, Cal.
COURTNEY, EDMUND, B. Ped. .....Louisville.
GUNN, HENRY MARTIN, B. S. .....Lexington.
HOBDY, WILLIAM COTT, B. S. .....New York, N. Y.
JOHNSON, JAMES RICHARD, B. M. E. .....Lexington.
MCFARLIN, JOHN WILLIAM, B. S. .....Winchester.
RAILEY, MORTON SANDERS, C. E. .....Washington, D. C.
ROBERTS, DANIEL STILLWELL, B. Ped. .....Ekron.
SMITH, DENNY PERRYMAN, B. S. .....Cadiz.
SPEYER, ROSA, B. S. .....Lexington.
WARE, CORA E., B. Ped. .....Pineville, La.
WHITE, MILFORD, C. E. .....Ottawa, Kan.
WILLIS, BENJAMIN GRANT, B. S. .....Lexington.

1894.

AULICK, EDWIN CHESTERFIELD, A. B. .....Frankfort.
BRADSHAW, GEORGE DICKIE, B. Ped. .....Winchester.
BRAND, EDWARD, A. B. .....Cynthiana.
CURTIS, CARLTON COLEMAN, B. S. .....Lexington.
FAIG, JOHN THEODORE, B. M. E. .....Ann Arbor, Mich.

GARRED, ULYSSES ANDERSON, B. M. E. .....Chicago, Ill.
GRIFFING, EMMA ROSETTA, B. S. .....Lexington.
HAYS, JAMES MORRISON, A. B.....Barboursville.
HUGHES, LEONARD SAMUEL, B. S. .....Frankfort.
JONES, MATTISON BOYD, A. B.....Williamsburg.
KEISER, BENJAMIN CHRISTOPHER, B. S..... ...Chicago, Ill.
KROESING, LILLIE, B. S. .....Lexington.
NEWTON, NATHAN ALEXANDER, B. M. E.....Lexington.
NORMAN, ALBERT CLIFT, B. M. E. .....Savannah, Ga.
OOTS, NINA PEARL, B. S.....Lexington.
SHELBY, KATHERINE, B. S.....Lexington.
SLEDD, DORA, B. Ped. .....Lexington.
TRIGG, WILLIAM CLAY, C. E.....Pushmataha, Miss.
WARNER, HATTIE HOCKER, B. S.....LaFollette, Tenn.

1895.

ATKINS, MARY LYONS, B. S.....Lexington.
BUSH, HENRY SKILLMAN, B. S. .....Lexington.
DIDLAKE, MARY LEGRAND, B. S.....Lexington.
DOWNING, JOSEPH MILTON, B. M. E. .....Lexington.
FAULKNER, JOHN VICK, C. E. .....Hampton.
FITZHUGH, LUCY STUART, A. B. .....Lexington.
FOSTER, NETTIE BELLE, B. S.....Lexington.
KING, ELIZABETH WHITTINGTON, A. B.....Lexington.
LEWIS, THOMAS STONE, A. B. .....Louisville.
MCCONATHY, JAMES ASA, B. S.....Kirklevington.
MCCAUGHLIFFE, MARY CATHERINE, B. S. .....Lexington.
MURRILL, PAUL INGOLD, B. S.....Ann Arbor, Mich.
NEWMAN, ROBERTA, B. S.....Muir.
REYNOLDS, NELLIE ANNA, B. S.....Lexington.
STOLL, RICHARD CHARLES, A. B.....Lexington.
WEAVER, RUFUS LEE, B. S.....Ann Arbor, Mich.
WILMOTT, JOHN WEBB, A. B. .....Lexington.
WOODS, JOHN JOSEPH, A. B.....Cynthiana.

1896.

ALFORD, SMITH EDISON, A. B.....Lexington.
CARNAHAN, JAMES WILLIAM, A. B.....Manchester.
CASE, DANIEL MORRIS, B. M. E.....Lexington.
DAVIDSON, HARRY ADOLPH, C. E. .....Louisville.
DEAN, THOMAS ROLAND, A. B.....Little Hickman.
DUCK, ALICE, B. S.....Lexington.
DUNLAP, JOHN JENNINGS, A. B. .....Independence.
KERRICK, FELIX, A. B.....Hardinsburg.
LYLE, JOEL IRVIN, B. M. E.....Ludlow.
MCDOWELL, EDWARD CAMPBELL, B. M. E.....Cynthiana.
ORMAN, HENRY, B. M. E.....Danville.
TRIGG, JOHN HENRY, B. S.....New Columbus.
WOODS, JOHN WESLEY, A. B.....Webbville.

1897.

ALLEN, WILLIAM RAYMOND, A. B. ..... Lexington.
ANDERSON, HENRY CLAY, B. M. E. ..... Seven Guns.
ATKINS, ANTOINETTE THORNTON, B. S. ..... Lexington.
BLESSING, GEORGE FREDERICK, B. M. E. ..... Carrollton.
BULLOCK, SAMUEL ARCHIBALD, B. M. E. ..... Lexington.
CASSIDY, ELIZABETH, B. S. ..... Lexington.
CLARKE, MARY EVA, B. S. ..... Lexington.
COLLIER, WILLIAM HENRY, B. M. E. ..... Hooktown.
DEBOW, SAMUEL CARRUTHERS, B. M. E. ..... Hickman.
DOWNING, GEORGE CRUTCHER, B. Ped. ..... Frankfort.
DUCK, BERKLEY WILSON, B. M. E. ..... Lexington.
DUNCAN, WILLIAM ADOLPHUS, B. M. E. ..... Franklin.
FRAZER, JOSEPH CHRISTIE, B. S. ..... Fayette County.
GEARY, JOHN THOMAS, B. S. ..... Lexington.
GORDON, ROBERT LEE, A. B. ..... Fayette County.
GUNN, CLARA BROOKE, B. S. ..... Lexington.
HALEY, JOHN THOMAS, B. S. ..... Fayette County.
HENDREN, JAMES HARRY, B. S. ..... Speedwell.
HICKS, ARTHUR LEE, A. B. ..... Danleyton.
KELLY, THOMAS CONWAY, B. M. E. ..... Georgetown.
MCHARGUE, BARBARA SUSAN, B. S. ..... Boreing.
MORGAN, GEORGE MATT, B. S. ..... Pineville.
POPE, ROBERT LEE, A. B. ..... Barboursville.
SCOTT, JOHN, A. B. ..... Lexington.
SEARCY, LULU, B. Ped. ..... Lexington.
SIMRALL, JAMES ORLANDO HARRISON, A. B. ..... Lexington.
WARNER, LOGAN HOCKER, B. S. ..... LaFollette, Tenn.
WHITE, MARTHA RIPPERDAN, B. S. ..... Lexington.

MILITARY DEPARTMENT.

ROSTER.

S. M. SWIGERT, Captain Second Cavalry, U. S. Army,
Commandant.

CADET BATTALION.

STAFF.

First Lieut. and Adjt., G. F. Blessing.
First Lieut. and Qr. Mast., S. C. DeBow.
Chief Trumpeter, A. S. Reese.
Commissary Sergt., T. G. Roach.
Sergt. Maj., B. W. Duck.
Qr. Mast. Sergt., G. G. Brock.
Trumpeter, C. W. McElroy.
Corp. Sig. Dept., E. H. Baker.

INFANTRY.

A COMPANY.	B COMPANY.	C COMPANY.	D COMPANY.
CAPTAIN.	CAPTAIN.	CAPTAIN.	CAPTAIN.
J. T. Geary.	H. C. Anderson.	J. D. Turner.	J. C. Frazer.
FIRST LIEUT.	FIRST LIEUT.	FIRST LIEUT.	FIRST LIEUT.
R. E. Warren.	W. J. Cahill.	W. A. Duncan.	J. T. Haley.
SECOND LIEUT.	SECOND LIEUT.	SECOND LIEUT.	SECOND LIEUT.
W. R. Allen.	W. H. Scherffius.	W. H. Davis.	S. A. Bullock.
SERGEANTS.	SERGEANTS.	SERGEANTS.	SERGEANTS.
T. S. Hamilton.	J. O. H. Simrall.	W. T. Davis.	L. B. Brock.
H. N. Davis.	E. C. Loevenhart.	T. C. Kelly.	R. L. Gordon.
J. Scott.	J. Morrow.	T. W. Scholtz.	G. C. Downing.
F. D. Bullock.	W. T. Carpenter.	T. L. Campbell.	J. B. Johnson.
C. W. Woolley.	W. L. Bronaugh.	C. C. Jett.	C. Reisch.
CORPORALS.	CORPORALS.	CORPORALS.	CORPORALS.
M. E. Johnston.	R. F. Severs.	S. A. Glass.	L. B. Allen.
W. J. Grinstead.	A. L. Hicks.	R. K. Maddocks.	E. E. Tanner.
H. A. Hoeing.	F. P. Farley.	R. J. Thompson.	A. S. Kidd.
J. A. VanOrsdel.	W. L. Brock.	G. Roberts.	B. W. Young.
F. W. Green.	C. Reed.	T. E. Martin.	C. J. Cornett.
C. W. Bradley.	J. M. Graves.	F. K. Cooper.	D. P. Scott.

ARTILLERY.

CAPTAIN.
G. M. Morgan.

FIRST LIEUT.
V. H. Denny.

SERGEANTS.
J. S. Johnson.
J. R. Vinson.

CORPORALS.
A. J. Asher.
C. L. Strauss.

POST-GRADUATES.

Alford, Smith Edison	Classical	Lexington.
Beatty, Wallace Appleton	Chemical	Lexington.
Didlake, Mary LeGrande	Biological.	Lexington.
Faig, John Theodore	Mech. Eng	Ann Arbor, Mich.
Kemper, Graham Hawes	Chemical	Lexington.
King, Elizabeth Whittington	Classical	Lexington.
Sweeney, William Oglesby	Chemical	Lexington.

UNDERGRADUATES.

SENIORS.

Allen, William Raymond	Classical	Lexington.
Anderson, Henry Clay	Mech. Eng.	Seven Guns.
Atkins, Antoinette Thornton	Scientific	Lexington.
Blessing, George Frederick	Mech. Eng.	Carrollton.
Bullock, Samuel Archibald	Mech. Eng.	Lexington.
Cassiday, Elizabeth	Scientific	Lexington.
Clarke, Mary Eva	Scientific	Lexington.
Collier, William Henry	Mech. Eng.	Hooktown.
DeBow, Samuel Carruthers	Mech. Eng.	Hickman.
Downing, George Crutcher	Normal	Frankfort.
Duck, Berkley Wilson	Mech. Eng.	Lexington.
Duncan, William Adolphus	Mech. Eng.	Franklin.
Frazer, Joseph Christie	Scientific	Lexington.
Geary, John Thomas	Scientific	Lexington.
Gordon, Robert Lee	Classical	Lexington.
Gunn, Clara Brooke	Scientific	Lexington.
Haley, John Thomas	Scientific	Lexington.
Hendren, James Harry	Scientific	Speedwell.
Hicks, Arthur Lee	Classical	Danleyton.
Kelly, Thomas Conway	Mech. Eng.	Georgetown.
McHargue, Barbara Susan	Scientific	Boreing.
Morgan, George Matt	Scientific	Pineville.
Pope, Robert Lee	Classical	Barboursville.
Roberts, Daniel Stillwell	Classical	Ekron.
Scott, John	Classical	Lexington.
Searcy, Lulu	Normal	Lexington.
Simrall, James Orlando Harrison	Classical	Lexington.
Turner, Job Darbin	Normal	Minnie.
Warner, Logan Hocker	Scientific	La Follette, Tenn.
White, Martha Ripperdan	Scientific	Lexington.

JUNIORS.

Anderson, Victor Vance	Classical	Barboursville.
Bonnyman, James Joseph	Civ. Eng.	Lexington.
Brock, George Green	Classical	Bush.
Brock, La Fayette Breckinridge	Scientific	Lexington.
Cahill, William James	Mech. Eng.	Lexington.
Campbell, Thomas Luther	Classical	Clinton.
Carpenter, William Thomas	Mech. Eng.	Lexington.
Davis, Horace Newton	Civ. Eng.	Lexington.
Denny, Van Hamilton	Classical	Lexington.
Farley, Frank Burton	Classical	Flat Lick.
Green, Frank Whitney	Mech. Eng.	Louisville.
Gunn, John Tevis	Classical	Lexington.
Gunn, Lucian Brooke	Mech. Eng.	Lexington.
Hamilton, Robert Browning	Agricultural	Lexington.
Hamilton, Thomas Smith	Mech. Eng.	Lexington.
Hiatt, Walter Saunders	Scientific	Lexington,
Johnson, Jack Stublefield	Classical	Muir.
King, Margaret Isadore	Classical	Lexington.
King, Thomas Edward	Classical	Cynthiana.
Loevenhart, Arthur Solomon	Scientific	Lexington.
Loevenhart, Edgar Charles	Mech. Eng.	Lexington.
Lucas, Ida West	Classical	Lexington.
McElroy, Courtney Watts	Civ. Eng.	Morganfield.
Roach, Thomas Gideon	Scientific	Fulton.
Smith, Sidney Allen	Classical	Lexington.
Straus, Charles Louis	Mech. Eng.	Lexington.
Terry, Lila Beatrice	Classical	Paris.
Trosper, Henderson Taylor	Classical	London.
Ward, Paul Sterling	Mech. Eng.	Cynthiana.

SOPHOMORES.

Allen, Leonard Barnes	Civ. Eng.	Lexington.
Brock, Walter Lucas	Classical	London.
Bronaugh, William Logan	Mech. Eng.	Lexington.
Bullock, Frederick Dabney	Mech. Eng.	Lexington.
Bullock, Joseph Hunt	Scientific	Lexington.
Copland, Alexander Chisholm	Civ. Eng.	Lexington.
Davis, Joseph Henry	Mech. Eng.	Little Rock, Mo.
Davis, Walter Hendricks	Scientific	Jacksonville.
Davis, William Tilden	Scientific	Jacksonville.
Farrell, Annie	Classical	Paris.
Graves, Leila May	Scientific	Lexington.
Grinstead, Wren Jones	Classical	Salem, Neb.
Hamilton, Hiram Edward	Agricultural	Edmonton.

Hill, Mathew Edgar	Classical	Knoxville, Tenn.
Holbrook, Martha Taylor	Scientific	Owenton.
Horton, Minnie Leigh	Classical	Camargo.
Hughes, James William	Mech. Eng.	Corydon.
Jett, Carter Coleman	Mech. Eng.	Jett.
Johnson, John Bockover	Mech. Eng.	Lexington.
Johnston, Marius Early	Scientific	Lexington.
Johnston, Phillip Preston	Mech. Eng.	Lexington.
McGovern, Hugh Edward	Classical	Lexington.
Maddocks, Roydon Keith	Civ. Eng.	Carrollton.
Mosley, Norval Wesley	Classical	Whitesville.
Newman, Herbert	Scientific	Gamaliel.
Sasser, William Henry	Scientific	London.
Scherffius, William Henry	Scientific	Lynnville.
Scholtz, Theodore Walter	Mech. Eng.	Louisville.
Scott, Daniel Price	Classical	Lexington.
Searcy, Jeanette	Scientific	Lexington.
Shaw, Henry Pleasants	Classical	Lexington.
Sugg, Willis Herbert	Classical	Clinton.
Vance, Arthur John	Mech. Eng.	Springfield.
Vinson, John Robert	Civ. Eng.	Cadiz.
Walsh, Robert Christie	Classical	Lexington.
Ward, Ashley Fatherly	Mech. Eng.	Cynthiana.
Warren, Richard Evans	Classical	Donerail.
Willmott, Jennie Walker	Scientific	Lexington.
Wootton, William Beverly	Scientific	Oak Grove.
Young, Bradley Woodruff	Scientific	Cincinnati, Ohio.
Young, Menon	Classical	Baldwin.

FRESHMEN.

Alford, Perry	Classical	Lexington.
Allen, Robert Milton	Classical	Faywood.
Baker, Edwin Harvey	Classical	Limaburgh.
Blakeman, Claude Norman	Civ. Eng.	Smith's Grove.
Bowden, Mary Willa	Classical	Paris.
Bradley, Charles Walter	Mech. Eng.	Lexington.
Bronston, Thomas Hughes	Classical	Lexington.
Bryan, Volney Hewitt	Scientific	Lexington.
Burnett, James Caldwell	Classical	Shelbyville.
Butler, Frances Victor	Classical	Paris.
Butner, Ellen Eliza	Normal	Wilde.
Caldwell, William Hardin	Classical	Shelbyville.
Chambers, David Lee	Classical	Clinton.
Copland, George Forbes	Mech. Eng.	Lexington.
Cornett, Charles George	Normal	Bush.
Cox, Jennie	Classical	Mt. Sterling.

Crook, Overton Cassius	Classical	Kingston.
Cunningham, Blanche	Scientific	Lexington.
Darling, Lewis Andrew	Mech. Eng.	Carrollton.
Davis, Edgar	Mech. Eng.	Hampton.
Daugherty, Frank	Mech. Eng.	Paris.
Deering, David	Classical	Lexington.
Ellis, Vera Todd	Scientific	Lexington.
Ewell, George Watkins	Classical	London.
Faulkner, Reuben Alexander	Normal	Hampton.
Forman, Thomas Vernon	Classical	Lexington.
Guedry, Theodore Elbert	Normal	Ekron.
Gore, Mary Ella	Normal	Carlisle.
Graves, James Madison	Mech. Eng.	Lexington.
Halcomb, George William	Mech. Eng.	Franklin.
Helm, Herschel Horace	Mech. Eng.	Morgantown.
Hestand, John Emerson	Scientific	Edmonton.
Hodges, Mary Laura	Classical	Lexington.
Hoeing, Howard Aubrey	Mech. Eng.	Lexington.
Hornsey, Lida Pratt	Scientific	Lexington.
Hostetter, Jacob Henry	Scientific	Lexington.
Hundley, Leslie	Scientific	Curdyville.
Jemison, William Grayson	Mech. Eng.	Eminence.
Johnson, Ishmael	Normal	Stanton.
Johnston, John Pellam	Mech. Eng.	Lexington.
Jones, Thomas Almon	Classical	Russell.
Kidd, Asa Steel	Mech. Eng.	Cincinnati, O.
Kidd, Major Philip	Classical	Lexington.
Lloyd, Cora	Scientific	Lexington.
Loyd, Ernest Thornton	Mech. Eng.	Lexington.
March, William Steel	Civ. Eng.	Paris.
Marks, Samuel Blackburn	Scientific	Versailles.
Martin, Thomas Ellis	Normal	Minnie.
Matlack, Margaret Antonia	Scientific	Lexington.
Matlack, William Lynn	Mech. Eng.	Lexington.
Millar, Carrie Virginia	Scientific	Lexington.
Morrow, Joseph	Normal	Rankin.
Naive, Edna Earl	Scientific	Lexington.
Neal, Mary Eliza	Classical	Paris.
Noon, Anna Dean	Scientific	Lexington.
Nichols, T. A.	Mech. Eng.	Lexington.
Newgent, Mary Edna	Scientific	Fulton.
Pennington, William Lee	Normal	Sandy Hook.
Perkins, Maud Belle	Scientific	Middlesboro.
Peyton, Nellie Evans	Scientific	Lexington.
Reese, Asbury Stamper	Mech. Eng.	Trenton.
Reisch, Charles	Classical	Louisville.
Roberts, George	Normal	Burnside.

Sams, James Robert	Normal	Cayce.
Sasser, George Washington	Classical	London.
Saunders, Cary Blackburn	Mech. Eng.	New Castle.
Scrugham, James Graves	Mech. Eng.	Lexington.
Scott, George	Scientific	Lexington.
Scott, Louis Allen	Mech. Eng.	Lexington.
Sharon, John Albatus	Normal	Mt. Auburn.
Shelby, Willie Irvine	Mech. Eng.	Lexington.
Simpson, Eugene Erwin	Classical	Lexington.
Smith, Albert Elias	Scientific	Owensboro.
Smith, Joshua Soule, Jr.	Mech. Eng.	Lexington.
Sneed, John Boswell	Mech. Eng.	Middlesboro.
Spears, Randa Lou	Scientific	Muir.
Stewart, Wallace Agnes	Scientific	Chambers.
Tanner, Ollie May	Scientific	Lexington.
Taylor, James Edgar	Normal	Morganfield.
Throckmorton, James Withers	Classical	Cynthiana.
Walsh, Robert Christie	Classical	Lexington.
West, Perry	Mech. Eng.	Nicholasville.
Wilkie, Amelia	Normal	Lexington.
Wilson, Madge Jeanette	Normal	Waco.
Wilson, Samuel Elmore	Normal	Franklin.
Woolley, Charles Wickliffe	Scientific	Lexington.

UNCLASSIFIED.

Dinwiddie, Joseph		Litchfield.
Kempster, James William Hickley	Mech. Eng.	So. Tacoma, Wash.
Martin, Pierce		Humphrey.
Meadows, Andrew Jackson	Classical	Williamsburg.
Welty, Ira Carlton	Classical	Colo, Iowa.
Wilson, Henry Clay	Classical	Mt. Olivet.

NORMAL STUDENTS.

FOR THE STATE CERTIFICATE.

Ballard, Thomas Emerson ..... Holy Cross.
Campbell, Eliza ..... Cullen.
Cartwright, Ethelind ..... Albany.
Cartwright, Nina Beatrice ..... Albany.
Coram, Catherine ..... Berry's Ferry.
Conrad, Hattie Clay ..... Sherman.
Daly, Delia Burbank ..... Pleasant Ridge.
Greer, Katie ..... Madisonville.
Hatfield, Ulysses Grant ..... Jabez.
Herrick, Nellie ..... Paris.
Ingram, Moses Randall ..... Ingram.
Jackson, John Hunt ..... New Columbus.
McComis, Samuel J. Tilden ..... Louisa.
McDowell, Charles Bates ..... Grundy.
Montgomery, Fields M. ..... Columbia.
*Nunn, Joseph Sylvester ..... Edmonton.
Pedigo, Mary Elizabeth ..... Edmonton.
Saylor, Josiah Clarke ..... Cubage.
Sharon, George ..... Mt. Olivet.
Smoot, Nellie B. ..... Fallis.
Tomlinson, Lizzie ..... Bryantsville.
True, John Walter ..... Porter.
Vaughan, George Washington ..... Clay City.
Waring, Edward Taylor ..... Lynn.
Williams, Robert Lee ..... Golden Pond.

FOR THE COUNTY CERTIFICATE.

Allen, Ida ..... Lexington.
Barnes, Rinda Ethel ..... Gose.
Bishop, Grayde ..... Madisonville.
Blackard, Mollie ..... Loradale.
Brough, John Coleman ..... Milford.
Cassell, Jennie Neil ..... Lexington.
Chambers, Charles Howard ..... Cedar Grove.
Chrisman, Sallie ..... Steubenville.
Christian, Mary Martha ..... Rankin.

*Deceased.

Coleman, William Ellis.....Milford.
Davis, Arthur Gabriel.....Hampton.
Fish, Clarence B.....Biddle.
Fox, Edith May.....Indian Fields.
Franks, John Denton.....Bardwell.
Freeman, Ida Alice.....Russell Cave.
Garner, George Perkeins.....Humphrey.
Glaze, Earl Lee.....Chilesburg.
Gore, Mamie.....Carlisle.
Gore, Jennie Pickett.....Carlisle.
Griffing, Orie Eunice.....Lexington.
Harris, Claude Elmer.....Independence.
Hayre, John Carrigan.....Manchester.
Hays, Annie Katherine.....Lexington.
Herndon, Everlee.....Lexington.
Horton, Alice Josephine.....Camargo.
Hostetter, Maggie Belle.....Lexington.
Houtchens, Nannie.....Chaplin.
Hubbard, Eugene.....Beechville.
Huff, Jasper Newton.....Confluence.
Huffhines, Seaf.....Rapids.
Johnson, John Boyd.....Williamsburg.
Lancaster, Joseph Robert.....Josephine.
McMurtry, William Cassius Goodloe.....Lancaster.
Mann, James Herbert.....Edmonton.
Mitchell, Everett Lonney.....Worthville.
Mitchell, Maud May.....East Hickman.
Nave, Willie Pearl.....Lexington.
Payne, Claude Bryant.....Paynes Depot.
Perkins, Maud Ann.....Chilesburg.
Phelps, Commodore Vander.....
Powell, Stella Verdie.....Lexington.
Rankin, Flora Emma.....Rankin.
Ruble, Myrtle Fletcher.....Buena Vista.
Smith, Christopher.....Hopper.
Smoot, Pearl.....Fallis.
Stevenson, Mary Jane.....Hedges.
Stevenson, Otie Lucile.....Dodge.
Tadlock, Verner Lee.....Danville.
Taylor, Burgin.....Richmond.
Thompson, Samuel Charles.....New Haven.
Townsend, Aaron Arthur.....Hickman.
Vaughan, Samuel Patterson.....Clay City.
Whitlock, Alma.....Baldwin.
Whitlock, Eddie.....Kirksville.

THE ACADEMY.

SECOND YEAR STUDENTS.

Asher, Andrew Jackson.....Wasioto.
Barclay, George LaRue .....Stephensport.
Billingsley, Harriet Evans .....Lexington.
*Blaydes, William Pingree .....Bagdad.
Brownfield, Harris Watts .....Buffalo.
Caldwell, James Shipp.....Paducah.
Elliott, John Milward .....Lexington.
Fairchild, Jackson Dillion.....Lexington.
*Farrell, Annie ....Paris.
Finneran, Thomas Francis .....Paynes Depot.
Forman, Leila Ellen .....Lexington.
*Glass, Seth Amnon .....Georgetown.
*Grinstead, Wren Jones .....Salem, Neb.
Hamilton, Archie Logan ....Kirklevington.
Hannah, Edna May.....Lexington.
Harbison, Lucia Caldwell .....Lexington.
Hogg, Samuel Tilden .....Booneville.
Keller, George Nelson .....Louisville.
King, John Gilbert .....Lexington.
Land, Alice Wilson .....Lexington.
Lyle, Cornelius Railey .....Lexington.
McDanell, Henry Pryor.....Warsaw.
Manning, Lawrence Warren.....Manchester.
Martin, Louis Wynne .....Lexington.
O'Mahony, Katherine Marie.....Lexington.
*Ragan, Leonidas .....Shearer Valley.
*Reed, Cecil.....Benton.
*Reisch, Charles .....Louisville.
Richmond, Thomas Logan .....Germantown, Tenn.
Scott, Nellie Dumont.....Lexington.
Severs, Roscoe Frymire .....Henderson.
Sigler, William Albert.....Cuba, Tenn.
Slade, D. D. .....Lexington.
Staples, James Henry .....Lexington.
Tanner, Ernest Estill.....Greendale.
Thomson, Robert Johnson .....Frost.
Van Orsdel, James Arthur .....Lexington.
*Webb, William Snyder .....Greendale.
Wheat, Dorothy Johnson.....Lexington.
Williams, Ella Campbell.....Chilesburg.
Willim, James Frazer .....Valley.
Willim, John .....Valley.

*Had two classes in the College.

FIRST YEAR STUDENTS.

Allen, William Emmett ..... Bridgeport.
Atkins, Bessie Ryland ..... Lexington.
Attersall, Charles Frank ..... Winchester.
Barr, Thomas James ..... Lebanon.
Blackford, William Woods ..... Nicholasville.
Caddell, George Hudson ..... Hollyhill.
Carlisle, James John ..... Harrodsburg.
Combs, James Horton ..... Lexington.
Copland, Jeanie Robertson ..... Lexington.
Coyne, Elizabeth Cecilia ..... Lexington.
Darnall, Shelby ..... Lexington.
Elwell, John William ..... New Hartford, Ia.
Gibson, James Syer ..... Dayton.
Gillispie, Jesse Forest ..... Plum.
Gorham, Eugene Boswell ..... Lexington.
Graves, Lottie Clovis ..... Hickman.
Griffing, William Stevens ..... Lexington.
Hogg, William Pryse ..... Booneville.
Johnson, Simeon Brownlow ..... Chavies.
McMullin, Henry ..... Hickman.
McVean, Donald Grant ..... Grants Bend.
Mattingley, Walter Hill ..... Louisville.
May, Elizabeth Woodward ..... Lexington.
May, William Lewis ..... Lexington.
Morris, Henry Raymond ..... Morgan.
Muir, John Wilgus ..... Chilesburg.
Nave, James Andrew ..... Nicholasville.
O'Rear, Harrison ..... Gilead.
Payne, Walter Schaffer ..... Paynes Depot.
Peak, Harry Douglas ..... Bedford.
Reid, John Thomas ..... Normandy.
Rose, Lida Houston ..... Lexington.
Sellers, Wallace Johnson ..... Brannon.
Shearer, Richard Francis ..... Gapcreek.
Smith, Roger Hanson ..... Fort Spring.
Stackhouse, Clifford Carr ..... Greendale.
Swope, Armstead Milner ..... East Hickman.
Tandy, Clarke Howell ..... Hopkinsville.
Taylor, Annie Florence ..... Lexington.
Taulbee, Joseph Fulton ..... Whiteoak.
Threlkeld, William Thomas ..... Morganfield.
Warnock, Thomas Edwin ..... Chilesburg.
West, George Jasper ..... Union Mills.
Wheat, Oma Bell ..... Lexington.
Wheeler, Mabel Hart ..... Lexington.
Woodford, Earl Thomas ..... Pine Grove.
Woodford, Leon Catesby ..... Pine Grove.

SHORT COURSE IN AGRICULTURE.

Atkinson, Thomas Hughes ..... Flatcreek.
Bosworth, Ben Thomas ..... Fort Spring.
Vogt, John Leon ..... Louisville.

REGULATIONS.

TRAVELING EXPENSES OF STUDENTS.

By the terms of the recent legislation upon the Agricultural and Mechanical College of Kentucky, a county appointee is entitled to have his traveling expenses from home to the College and return paid by the College, on the following conditions:

1st. He must be appointed according to law, a copy of which is in the hands of each County Superintendent of Schools.

2d. He must travel from home to the College by the shortest, least expensive and most expeditious route, and take receipts for all necessary expenses of travel, depositing the same, upon arrival, with the President of the College.

3d. He must present himself for matriculation within one week after the beginning of the fall term of the collegiate year.

4th. He must bring a certificate of good moral character, signed by two or more well-known and responsible citizens of his county.

5th. He must pass creditably the entrance examination required for admission.

6th. He must remain a student of the College for ten consecutive months, or one collegiate year.

7th. He must maintain during the collegiate year such class standing as will enable him to pass the final examination at the end of the year.

8th. He must maintain a good character and maintain such class standing as the regulations require.

If at the end of the collegiate year the foregoing conditions have been complied with, the President of the College shall certify the fact to the Treasurer of the College, who, upon said certificates as vouchers, shall pay to the appointee the amount shown by the receipts aforesaid, and in addition thereto the sum for discharging the necessary expenses to be incurred in returning home.

COLLEGE EXPENSES.

The necessary expenses of a student while at College need not exceed the following estimates. As a rule the less pocket-money allowed by parents or guardians the better it is for the pupil. When supplies of pocket-money are kept short the opportunity for contracting vicious habits is correspondingly diminished. Students should not be allowed by their parents to create any debts. All moneys intended for the use of the students should be deposited with the Commandant.

For a county appointee, occupying a room in the dormitory and boarding in the common mess, the necessary expenses are as follows:

Tuition free,	$000 00
Matriculation free,	000 00
Room rent free,	000 00
Use of furniture in room,	2 50
Washing, about,	10 00
Uniform,	19 00
Board, 38 weeks, at $2.25 per week,	85 00
Books, about,	8 00
Total,	$124 50

Each room must be provided by each occupant thereof, *at his own expense*, with a good mattress, three comforts or blankets, one pillow, three pillow-slips, four sheets, looking-glass, blacking-brush, hair-brush, clothes-broom or brush. Some of these articles may be brought from home by the student.

For students who are not supplied with appointments from the Legislative Representative Districts of the Commonwealth, and who board in private families, the necessary expenses will be as follows:

Tuition fee,	$15 00
Matriculation fee,	5 00
Board and lodging, 38 weeks, at $3.50 to $4 per week,	133 00 to $152 00
Washing,	10 00
Uniform,	19 00
Books and stationery,	10 00
Total,	$192 00 to $201 00

Those who occupy rooms in the dormitory pay $6.50 each (yearly) for the use of a room and its furniture. A standing deposit of $5 is required from each student, which deposit is refunded when his connection with the College is terminated, less the amount which may be assessed against him for damages done to the buildings, furniture, or premises. All damages, injuries, defacements, etc., which rooms and furniture in the dormitory sustain during occupancy will be charged to the occupant thereof. All injuries, damages, defacements, etc., which the halls and dining-room sustain will, unless specifically traced, be charged to the occupants of the respective sections collectively.

BOARDING.

For the accommodation of students sent as beneficiaries of Legislative Representative Districts of the State, rooms for one hundred and forty students are provided in the dormitories. To these, good substantial board is furnished at $2.25 per week, payable weekly in advance; but no student under seventeen years of age will be permitted to room in the dormitories unless all of his classes shall be in one of the regular collegiate courses. Good boarding, with fuel, lights, and furnished room, can be obtained in private families at rates varying from $3.50 to $4 per week.

The students who board in the dormitories are, for business purposes, organized at the beginning of the collegiate year under a Chairman and Secretary of their own choice, whose successors are elected on the first Tuesday of each term, and who serve for one term. At the business meeting, held on Tuesday night of each week, the weekly dues, $2.25, are paid. The boarding department is managed by a Board consisting of the President of the College, the Commandant, a Treasurer, who is a member of the Faculty, and into whose hands all the weekly dues are placed when collected, a Steward, and the Chairman and Secretary selected by the students. It will thus be seen that the boarding department has no official connection with the College authorities. The College, as such, does not board the students, and is in no sense responsible for any debts created by the boarding department. Three members of the Faculty, in their individual capacity, assist in the management of its funds.

No provision is made for women in the dormitories.

BENEFICIARIES.

Each Legislative Representative District is allowed to send, on competitive examination, *one properly prepared student* each year, to this College, free of charge for tuition.

Beneficiaries are appointed on competitive examination. A Board of Examiners is appointed for this purpose by the County Superintendent of common schools. The results of examination are reported to the Superintendent, who, from the data thus furnished, selects the appointee. Examinations are made upon subjects transmitted to the County Superintendent by the Faculty of the College. One appointment is made each year.

Appointments are made by the County Superintendent between the first day of June and the first day of August of each year. Appointments when made should be immediately certified to the President of the College.

Appointments for the College proper, viz., the Agricultural, Mechanical Engineering, Civil Engineering, Scientific, Classical, and Normal Collegiate courses are all valid for the term of years necessary to complete the course of study in which the appointee matriculates. This includes the course in the Academy.

It follows from the above that a county which makes its appointments regularly according to law will have for the session of 1893–4 one appointee in the College, for the session of 1894–5 two appointees, for the session of 1895–6 three appointees, for the session of 1896–7 four appointees. When the first appointee completes his course, or ceases to be a student, another appointee takes his place. When the quota of a county is full it will have at least four appointees in regular attendance.

Each appointee is required to pass an entrance examination at the College on the subjects comprising all that is embraced in Arithmetic, English Grammar, Geography, and United States History, in the Common School Course.

All persons are eligible between the ages of fourteen and twenty-four who have completed the Common School Course—preference being given to young men or women whose means are limited, to aid whom this provision is especially intended.

Any person not an appointee may enter the College on payment of fees, but no one who is not an appointee receives traveling expenses or is exempt from payment of fees.

APPOINTEES TO THE NORMAL COURSE.

The law makes provision for the appointment of four teachers, or persons preparing to teach, each year. Appointments may be made and certified to the President of the College between the first day of July and the thirty-first day of December of each year.

Appointments to the Normal School are tenable for one year.

Applicants for appointments are examined by a Board of Examiners appointed by the County Superintendent on subjects transmitted by the Faculty, viz., upon Arithmetic, English Grammar, United States History, and Geography. They should not be less than seventeen years of age. They are also required to pass an entrance examination at the College. They must likewise bring certificates of good moral character.

Matriculates in the Normal Department will be required to sign an obligation to teach in the Common Schools of Kentucky for as many months as they receive free tuition.

SPECIAL COURSES OF STUDY.

Special courses of study are not provided for in the Academy, the Normal School or the College proper; provided, however, that persons who have passed the age of twenty-four years, the limit below which appointments as beneficiaries under the law must be made, may under certain conditions be allowed to pursue selected studies without matriculating in one of the regular courses of the College.

CHANGE OF CLASSIFICATION.

No change of classification is allowed during the session.

LOCAL EXAMINATIONS.

The Trustees of the State College, at their meeting in June, 1895, endorsed the "Local Entrance Examination Plan" now established by other colleges in other States. This is done for the purpose of placing all parts of the State on an equality as regards entrance to the College proper.

The examination here proposed is in no sense a substitute for the "County Appointee Examination," but may, if the appointee is qualified to enter the College proper, be made supplementary

to that, determining his status as regards the classes there. But this examination is not limited to the appointees. It may be taken by any one desiring to try for entrance into any class in the College not lower than freshman.

It is proposed to hold these "Local Entrance Examinations" in June in districts somewhat remote from Lexington, as well as in Lexington itself. The questions will be prepared at the College and sent out under the care of some member of the Faculty (or other properly constituted agent) who, after conducting the examination, will in most cases send the papers back to the Examination Committee at the College to be passed upon.

The Lexington examination for the session of 1896–7 will be held in the Main Building of the State College, June 9th and 10th, beginning at 9 A. M. each day.

ACCREDITED SCHOOLS.

Schools, whether public or private, may be accredited in accordance with a resolution of the Faculty providing that graduates of these may be exempted from entrance examinations to the College where the heads of these schools have complied with certain conditions.

Further than this the Faculty will recommend to the Board of Trustees that an annual award of a free scholarship be made to the pupil in each accredited school who has completed the certified course with the highest class standing. This scholarship entitles the recipient to free tuition. If, in addition, the holder of a scholarship obtains the "County Appointment," he is entitled to free room in one of the dormitories and free traveling expenses.

A revised list of these schools is appended:

PUBLIC HIGH SCHOOLS.

†Ashland, J. G. Crabbe, Superintendent.
†Bellevue, J. M. N. Downes, Superintendent.
†Carlisle, W. F. Ramey, Superintendent.
†Catlettsburg, J. B. Leech, Superintendent.
†Corydon, C. E. Dudley, Superintendent.
†Covington, John Morris, Superintendent.
†Cynthiana, C. A. Leonard, Superintendent.
†Dayton, R. M. Mitchell, Superintendent.
†Flemingsburg, J. T. Leahy, Superintendent.

†Frankfort, McHenry Rhoads, Superintendent.
†Harrodsburg, C. W. Bell, Superintendent.
†Hopkinsville, Livingston McCartney, Superintendent.
†Lawrenceburg, H. V. Bell, Superintendent.
Lexington, Rogers Clay, Superintendent.
†Johnson High School, W. K. Shelby, Principal.
†Dudley High School, Col. Graves, Principal.
Louisville, E. H. Mark, Superintendent.
†Female High School, W. H. Bartholomew, Principal.
†Male High School, R. P. Halleck, Principal.
Manual Training High School, H. G. Brownell, Principal. To Soph. M. E. Course.
†Marion, Charles Evans, Superintendent.
†Maysville Male High School, G. E. Hutchins, Principal.
†Maysville Female High School, Miss Fanny I. Gordon, Principal.
†Middlesboro, C. H. Gordinier, Superintendent.
§Mt. Sterling, Mrs. N. K. Hibler, Principal.
†Newport, John Burk, Superintendent.
†Nicholasville, R. G. Lowry, Superintendent.
†Paducah, Geo. O. McBroom, Superintendent.
†Paris, E. W. Weaver, Superintendent.
†Smithland, Miss Martha Grassham, Principal.
†Somerset, Alfred Livingston, Superintendent.
†Winchester, R. M. Shipp, Superintendent.

PRIVATE ACADEMIES AND HIGH SCHOOLS.

‡Cynthiana, Smith's Classical School, N. F. Smith, Principal.
†Franklin, Training School, McCutchen and Finn, Principals.
†Henderson, Henderson High School, W. B. Tharp, Principal.
‡Lexington, Lexington Preparatory School, T. B. Threlkeld, Principal.
§Lexington, Private School, Miss Ela M. Williams, Principal.
†Lexington, Alleghan Academy, A. N. Gordon, Principal.
†Louisville, St. Xavier's College, Bro. James, Principal.
†Owenton, Owenton High School, H. C. Smith, Principal.
‡Paris, Boy's School, Prof. William Yerkes, Principal.
‡Versailles, Rose Hill Seminary, Miss Gillie Crenshaw, Principal.
‡Williamsburg, Williamsburg Institute, J. N. Prestridge, President.
†Williamsburg, Williamsburg Academy, Prof. Stevens, Principal.

† Accredited to Freshman (or higher class by special certificate).
‡ Accredited on subjects covered by certificates of proficiency.
§ Accredited to Freshman (Elementary Physics excepted).

The lack of uniformity that still obtains with reference to High School Courses of Study in this State renders it difficult to indicate here the exact degree of credit that should be accorded these, where they are equivalent to something higher than the first year in college. It seems advisable, therefore, simply to accredit all alike to Freshmen, and provide for higher classification of the student by special certificate, should that be necessary.

An application from a Superintendent or Principal, requesting that his school be placed in a list with the above, should be accompanied by a report or catalogue of the school, giving the course of study. In case the latter is specific and the completion of it required for graduation, it may be accredited as a whole; otherwise each student's proficiency will be accredited in subjects covered by certificates from the Principal.

The sciences taught in the preparatory schools are accredited as such, not as substitutes for the subjects pursued in the college under the same name.

STUDENT LABOR.

The work necessary for carrying on the agricultural and horticultural operations of the College is done by the students, and is paid for at rates varying from six to ten cents per hour. Its design is two-fold: to put in practice the instruction received in the class-room, and to assist students who are in need of money. The experience of this College is that of Agricultural Colleges generally—that compensated labor is not remunerative to the College.

The College assumes no obligation to furnish students an opportunity to labor for compensation.

Students are paid monthly for the service rendered, and apply the money as they see proper.

No student, however, should come to this College expecting to maintain himself exclusively by compensated labor. At least seventy-five dollars per annum, exclusive of his earnings while here, should be at the command of every student who wishes to avail himself of the advantages of the system of compensated labor.

CERTIFICATES OF CHARACTER.

All applications for admission into any class of the College or Academy must bring satisfactory testimonials of good moral character.

THE MONITRESS.

The young women who attend the College have assigned for their exclusive use a large and well-appointed study room. Here, while they are not engaged in the class-rooms or in the chapel, they are under the constant and strict supervision of the Monitress, Mrs. Blackburn, who has been long connected with the College and is well qualified for her duties.

CALENDAR FOR 1897-8.

1897.

Entrance Examinations begin	Sept. 6th.
First Term begins	Thursday, Sept. 9th.
Thanksgiving	Thursday, Nov. 25th.
Board of Trustees meet	Tuesday, Dec. 14th.
Christmas Holidays begin	Wednesday, Dec. 22d, 12 M.

1898.

College duties resumed	Monday Jan. 3d, 8:30 A. M.
Second Term Begins	Monday, Jan. 24th.
Washington's Birthday	Tuesday, Feb. 22d.
Union Literary Society contest	Tuesday, Feb. 22d.
Patterson Society contest	Saturday, March 26th.
Senior Examinations begin	Monday, May 9th.
General Examinations begin	Monday, May 16th.
Board of Trustees meet	Tuesday, May 31st.
Class Day	Wednesday, June 1st.
Alumni Banquet	Wednesday, June 1st.
Commencement	Thursday, June 2d.

COLLEGE DIRECTORY.

	RESIDENCE.	COLLEGE QUARTERS.
ANDERSON, F. PAUL,	69 Kentucky Ave.,	Mechanical Hall.
AUBREY, THOMAS,	243 S. Limestone St.,	College Boiler Room.
BLACKBURN, MRS. LUCY B.	Central Ave.,	No. 14, 1st Floor Main Building.
BLANTON, R. L.,	50 W. Second St.,	No. 13, 1st Floor Main Building.
CURTIS, H. E.,	126 S. Upper St.,	Chem'l Lab., 1st Floor Station Bldg.
DAVIS, J. M.,	122 S. Limestone St.,	No. 1, Basement Main Building.
DICKER, JOS.,	26 Virginia Ave.,	Mechanical Hall.
GARMAN, H.,	424 S. Limestone St.,	1st Floor and Basement Station Bldg.
HARPER, J. N.,	S. Limestone St.,	Experiment Farm.
HODGES, MISS MARY,	96 N. Upper St.,	No. 10, 1st Floor Main Building.
JOHNSON, J. R.,	236 E. Maxwell St.,	Wood Shop, Mechanical Hall.
KASTLE, J. H.,	S. Limestone St.,	2d Floor Station Building.
KEARNEY, W. J.,	95 S. Limestone St.,	Ex. Lab., Mechanical Hall.
LOGAN, J. L.,	217 N. Broadway,	No. 2, Basement Main Building.
MATHEWS, C. W.,	410 S. Limestone St.,	Basement Station Building.
MILLER, A. M.,	124 S. Broadway,	No. 16, Main Bldg. & Bas'm't St. Bldg.
MILLIGAN, R. A.,	492 S. Limestone St.,	Mechanical Hall.
MUNCY, V. E.,	116 E. Maxwell St.,	No. 10, 1st Floor Main Building.
MURRAY, JAMES,	428 S. Limestone St.,	College Conservatory.
NEVILLE, J. H.,	218 W. Main St.,	No. 21, 3d Floor Main Building.
NELSON, J. P.,	40 Barr St.,	2d Floor Mechanical Hall.
NEWMAN, J. W.,	124 S. Broadway,	No. 8, 1st Floor Main Building.
PATTERSON, J. K.,	Brick Dwlg. on Campus,	No. 12, 1st Floor Main Building.
PATTERSON, W. K.,	Brick Dwlg. on Campus,	No. 17, 2d Floor Main Building.
PENCE, M. L.,	108 Marino St.,	Nos. 5 and 7, Basement Main Building.
PETER, A. M.,	236 E. Maxwell St.,	Chem'l Lab., 1st Floor Station Bldg.
PRYOR, J. W.,	73 W. Third St.,	No. 9, 1st Floor Main Building.
ROARK, R. N.,	420 S. Limestone St.,	No. 11, 1st Floor Main Building.
SAUNDERS, JAMES E.,	14 Virginia Ave.,	Mechanical Hall.
SCOVELL, M. A.,	Experiment Farm,	Office, 1st Floor Station Building.
SHACKLEFORD, JOHN,	71 Woodland Ave.,	No. 19, 2d Floor Main Building.
SPURR, R. J.,	97 S. Broadway,	Experiment Farm.
SHELBY, MISS A. M.,	70 Ashland Ave.,	Office, 1st Floor Station Building.
SWIGERT, S. M.,	Cottage on Campus,	No. 5, Main Building.
WELLS, J. H.,	107 E. Maxwell St.,	2d Floor Mechanical Hall.
WERNICKE, PAUL,	107 E. Maxwell St.,	No. 20, 2d Floor Main Building.
WHITE, J. G.,	140 E. Maxwell St.,	No. 15, 1st Floor Main Building.

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